SEQUENCE LISTING



<110> Horrigan, Stephen

<120> Cancer Gene Determination and Therapeutic Screening Using Signature Gene Sets

- <130> 689290-73
- <150> US/60/236,033
- <151> 2000-09-28
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acgtggagaa tagcaaagcc aggattcaaa cctgggnagt ctggctccag gntttacact
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ctcatgctgg tgccttccca gacgaaggag agggcccaga ggaggcagct tcctggagca
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acagatgcta ttatacagct attaaaacaa ctaaaattaa aaagactaac cataccaagt	240
atggcaagaa tgtagagaaa taagaaggtt cacatactgt tgatgagaat gcaaatggta	300
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\langle 223 \rangle n=a,t,g or c
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qacqqaaaqa accaqactcc tctctgaggt tnnggaagaa ttagaaaagg taaaacaaga
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aatgqaaqaa aaqgqcagca gcatgactga tggtgctcct ttggtgaaga ttaancnnng
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gcaggaagcc atttatgact gaggaaggag accactgatg gccaggggag cngaaaccng
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aaagagacta aagttgaaga atttetttte ateaggeeac eeaagtattg caaaceagaa
                                                                        180
aaaaatttta atataaactg ttgcaatcct tacatcttta tgcaatttat ttggaaaagt
                                                                        240
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caaataattc cattacaaat atatttgtta aaaaccttat aaatttaact tataaattcc
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ccaqqqaatt tattattaat qaaqtcataa aacaqactta accaaaagtq tgtgctagga
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aacaagcagt ttcacttcag agacttcatt gcaggaaccc agtttcctta tgtggaaaaa
                                                                       240
agtgattata aataacagtt atctgaaagg tggttgagag gattaaatga gatcacctat
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qcaaacaaat acatgtaggt atgaaagacc atccgtcctg ggggtngtgg aaagtttaag
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aaaaatatga ctgttttgat cttaagctat acattttatt tttatctaac tgattaagac
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tgttggttat cacggttaat taatttaaaa ttgtggttta ttaatatttt aagttactct
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catattatat tttattaatt ttttcttatt taaaaaqctt qtctctqcca cttcctqtqt
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gacctgggca agtcatttta cctctaagag cctcaaattt cctcatctat aaagtggaaa
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tataaataca aagcttgcag aaatgtcagg aaaataaata aattaaatgc caaatagtca
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atgagggata ttaggcaaag gccagttttg gtgggcattt taacctatgg agactcagtg
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cctctgtgtg tcccattatc acctccaaga catcctggca acaccaccgc tg
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aagagaggtg agagacattc tactcaaagt catgggctgg gctttctgtc ctccaaacga
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aattgggcag gncatttgcg tggtttcctc tgggataaag ttccccttat ttaatcantg
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                                                                        501
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                 сष्ट्रद्रितीष्ठ प्रद्रुतिष्ठप्रदे प्रवादिष्ठे द्रुतिष्ठे द्रुतिष्ठे द्रुत्वतिष्ठे द्रुति द्रुविद्रिते द्रुति
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                 двядвягаяя сгадавдагдя ягвявдгсся дагсдведсе сведдгяяся грегосревд
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                 fdcsfcfdcs dccsdadfcd cscfsddssf cscdscddfd cffscssfds cssccsfcsd
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                 recaegacty teactaagit tiegictaaa gagaaacait ggitaetica tiitgeaaac
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                 attttcaatt gttgactaca agatggtgtc taagaaggtg gagttcacaa caggagcgta
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                 अर्राह्म वर्तित अव्यविष्य वर्ति वर्त
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                 विवादिवयेववेव वार्वेदवंदवंदवंदवंद विवादिवयेव वार्त्ववंद वार्वेदवंद वार्वेदवंदवंद वार्वेवदवार्वेव
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                 cagcatagac atggictecg aagigaatat ggattataca eteaceatgi atticeagea
                 rederracad ceadactrea daddacece edredaearr addaracada redararede
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                 accedeaac atgecatacy tgaaagaga agtggacaga ttgctcaaag gatatgacat
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                 αδαδιστιστο τοττισσος απολοφέρος σεταδιστος τατασσοσο ασοσοσοτασ
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1050	вададссярд	сссядстата	ccscdccccd	гвсвдвдссс	cfdccscfcc	scrasadrca
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084	вссяддрягд	ಡಿತಡಿತಡಿಧಡಿಡಿಡಿ	ccscddccfd	aacctccctc	caccctcctc	agatgccctc
720	ರ್ಡಿಂದರಿಗಳು	cscccsddcr	ಡಿಡಿಡಿಡಿಡಿಡಿತ	ವಿವಿಡಿತವಿವಿರಿತ್ತ ್	dddaddccca	авададасср
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075	ccatagaacc	аассатдтдг	dactaatgca	atgetetet	ссссдева	τεατττετα
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300	craccadraa	ccsdtdtdct	agcttttct	гсядссгдгд	τατατατα	csagatatcc
540	ttcttccact	aatgctctct	dcaatgtgct	гаааагаага	tcacaatggc	gataaattga
180	dcagagatca	αναδασεςςς	ccsctaggga	crdrdadccr	draradaddc	tcdttcccda
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1488 ададстргсс авадгарть ваваравава савдрргор расасрду addadcesadd cretadceca saacetecte creceagus cteatitata tigetectaa **1**₹₹0 reretaacte ttatetteea cagggteeaa gagtteatea ggaeeeeeaa gagtgagtga 1380 дсгадассса сгрядсссяс сяддсягдяй дссяядасгс сясгдяссяй дядассаяда **I3**50 двясьсядда сссьддавась досьддадсся вдосвядддо своссовые всявасосся **T**500 विविद्याद्वाद्व द्वाया विविद्या व्यविवाया विविद्या व्यव्यव्यव व्यव्यव्यव्यव 1500 randadarc reradedeta desdasades sarcerres derreddese desadeerds TT40 अवटटटटबेटट १वेवटटटबेवेड वेवबेट१वेवेवे १वेवडटबेटबेट टट११ववेवेवट१ वेवडवेवेब१व **T080** явдяядесс сагысындар адрадсы саддындары ырдындын сергындары адрадыны арын адрадыны 1050 адсясадася сядастятс ядгастасяй ягаатссяда стягадяяя адсстстада 096 adccecarra cedccrreed deedcraee deecedrar acraccader creceecca 006 0₽8 म्बर्वेषटबटबचे बवीबर्वेवेटबट बवीव्रेट्टिटवेवे वेषर्म्बटबर्ट बर्वेर्वेदेवेब रूट्वेवेटडबचे 780 адгасссяга ссгсгадсга сяградава дягосссяда дсягиссяя сявосрояга 150 वेष्ट्रतिहेत्व प्रवित्प्रवेष्ट्रच वेष्ट्रह्तिवेष्ट्रच वेष्ट्रच वेष्ट्रह्तिवेष्ट्रच वेष्ट्रच वे 099 009 acggytagt graceaecc tracgeas tecasgete teategaga aatgateegg adcadercad ceaergrafa egggaacee eagracerge ecertgarda ggeceaeeee 075 उद्याविष्ट के प्रताम के किन्न किन्न के किन्न किन्न के किन 08₽

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3240		arcagacccc				
3480	сғадассғағ	ctgtatgcac	csascggcat	ccccsddscr	craracrara	cacteceace
3420	cagaccctaa	deffecefee	агададагад	decadectas	dagcccttgg	saraarcccr
3360	ctcccattcc	αασεταστες	acccccacta	aaaccacagc	агададггсг	dreceeeese
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3540	tcatgctcat	acatatatgc	attcattctc	ttacacactt	acacacatgc	cctcactctc
3180	accettacae	acgeteaeae	ағааассғағ	ddrdcscscd	cccaggttca	accatgggcc
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2820	cacaacacc	сасасасаса	сясясяся	ರ್ಡಿತಿ	cagcaccca	сасааасаса
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                               cactgcaccc adacadgaa ttcccttct aaagcgagat cctgtcctga ggaaagcaag
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                               विवयवयवीद्य त्वेववेद्वेववेद बर्द्यावेववेवद द्रव्यवेद्वेद्व वेवद्रवेद्वेद्व वेवद्रवेवद्वेवववेव
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                               टक्वेटवेक्वेटक्वे वेटटबर्कटटक्ट क्वेवेटबर्क्नेट्र टटक्वेवेटट्वेर वेर्टवेवेट्टर्ट् वेवेट्वेवेक्डके
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                               वेद्रवेददवेदवेष वेष्ट्रद्रविषवेर वेद्रष्ट्रद्रदे व्यवेर्द्रद्वेत प्रद्रष्ट्रद्वेत व्यवेरेष्ट्रवेत
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                               टक्वेटक्वेत्रेव वेवेट्टट्टेट् वेक्वेवटक्वेट्वे वेट्टक्ट्ट्वेक वेटटटक्वेक्वेट् ट्टक्वेक्टटक्वे
                               saddecetge ecceteage tteccagat taggitaegt aggecacea aggecaaagg
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9720	ccscdddccc	csctdgtgga	dadtcacttc	ccffccfcdd	rccrcsccdc	cscsccccc
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0006	д ತ ддс ¢д ತдд	agctacttgg	ctgtaatece	радсясясяс	ccsdstdtdd	aaaaaattag
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01/98	ನಿನಿcತನಿನಿ ಧ ನಿcc	гдадсагддг	aaaaattagc	aatattttt	ctctactaaa	daaaccctgt
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83₫0	gaatgaccc	гадэадсгаа	aacaggtgcc	sacctctata	ddccsdsrdc	ರ್ವಿಡಿತಡಿದ್ದರಿತ
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atggctggcc ctgggtgggg atagtttaca cccgggcagc agcaccacac atgaacccaa
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agacatgttc tttttaaagc tgttttcagc catgtttctc tggtgcatct ccagtaagca
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                                                                       480
qaaqqctacc cattccattc ctcaacccca aqaqctagca cagttagagt aggagggggg
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tgcgtactag cacgtgncca gttgctcagt gcggcaggta gaaatgattt gcataggtcc
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<213> Homo sapiens
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<210> 134 <211> 168 <212> DNA <213> Homo sapiens					
<pre>the content of the content of t</pre>	tttttttaa	accaaatagg	ctcaagaagc		60 120 168
<pre><400> 135 gcaggctgat acatgtgggg gatgttccac aaatataaaa ggattattct ggctaaagcg <210> 136 <211> 246 <212> DNA <213> Homo sapiens</pre>	atgagaaact	ctttcagatt	atctgtatat	ctatatacct	60 120 175
<pre><400> 136 ttttttttt ttttttggaa aaacgagggc attttgttt cattggctgg tgggctggcc cctggtccag agggatggct gagaga <210> 137</pre>	aaaaaggggc gagccaccct	agggcgacac caggcccctg	tggcggcctg cccacccggt	aggaggggtc ccgccctctg	60 120 180 240 246
<211> 263 <212> DNA <213> Homo sapiens					
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cacatecagt cecageecaa gatecagtet acceaggeea tgteecegaa tggeaggagg
                                                                       180
cqtctqtcca qtttqtatqt qtqqatcaqt ctctctqaqt qtctqaqccq ctqcctqcaq
                                                                       240
qqcccccca ttctccgcac atggtagggg ctgttaggaa catagcgtgg catccccqq
                                                                       300
tgqaccactq qqccccaqtq ctgaccatgg ggattagggc cagggattgg aggtgqcaqa
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agaataattt taacagaaga aaaagctcac atctatctag atgtggctat gttccatggg
                                                                       180
aaaaatttca gcatccaaag tgcaaagaaa aaatgactgt agcttttctt accacaaaat
                                                                       240
attqacaatc ttcccttata gcctactctt tattgttagt tgggatgcca aaggatgata
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atggaagttg ctttactcct ttctacctta gttatttgac ctataattag aggataaaat
                                                                       180
acaacattct aaaatcctgg taatatggcc gatatataat tttatttttg atgtgggtga
                                                                       240
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gagtettgaa gtetggaaag eatttaaett attaaaagae
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<220>

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aaaatggaag tgaggtacag aaacagctgg gcttggctac agcttggcat ttgccttatc
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tgaacgtggt ttgaacagtt ggctacattt gattggccaa aactcagtga ttggcacaag
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tqtaqtctqt ttacacctcc acttqtcacq atatacagac aaacctttag gccaaactta
                                                                     300
aatatataag gaggcagctt taggctaaac tttatttcaa tacctgtatt ccaacacttt
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qqqaqqccqa qqcqqqaqqq atcacttqaq cctaqqaaqt tagagattca gcccaaqcaa
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                                                                     495
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<212> DNA
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tqaaatctta qaqtaqaacc actactctaq taatacttqt aataaaatta aaataqtttt
                                                                     180
aaacacttcc ataaagaatt aggggtgccc agctccttga tttcccccta gggataaaga
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tatccatqta caattccaqq qaqcttccct qtaattcctc aaaaaaaggca ctagtaaaac
                                                                     300
tcttaggagg gatattagga taaaggctca cttaggcaat agcccttttt ccccacatat
                                                                     360
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<211> 463
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                                                                     120
aatttaaatg totttatttg ttactttoca aatattttgg ttaaacaaat atotottgca
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aatgtatett caaaatettt geetacatge atacaatttg ttetteecaa etgettaggg
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gaaatteett caaaatgett agggagttet aacacateaa atetgateat titgittaca
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360
ctqqcatttt caccctcaqq acatqtctcq taaqqtntqa qqqqttaqqc taqqnaqqqq
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                                                                        120
tcttttgtag ttctttcatt aatctgtatg atccaaactc aagtacgtaa ttttttcttt
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acggcagcct ccacctcatg ggcatcaagt gatccttctg cctcagcctc ccacgtaggc
                                                                        300
agggaccaca ggcggaanac ccatgctcag ttattattat tattatttt aggagacagg
                                                                        360
qqtcttqqct atqttqqccc qqqnttqtct taaaactncg qggctcaagt aatccttcca
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cctcaqtntt cctaaqqtac gtaatatttt taataggcaa accatt
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<210> 145
<211> 385
<212> DNA
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<222> (1)...(385)
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qctctattta atttgaattt ttacttaaat caaaagcaga aaatttaaat tgtcactaat
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cttaactggt caagggcatg atgcatcagt ctcataacct gggcaaaaac ctgcccttaa
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                                                                        385
<210> 146
<211> 372
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(372)
\langle 223 \rangle n=a,t,g or c
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agaatcaaaa atgagatatt aggtagactt ataaaacaaa gtatagttat tttttgattt
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caaataaacc atgtgcaaaa ttgtaaaatg ccaatgtgtc tgagaaaagc attaacagtc
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cttttagcaa tttatatata aagatgtttt taaagtgcca cagcttaagg cattatattt
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                                                                        360
ctataaacta tt
                                                                        372
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<213>
       Homo sapiens
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<221> misc feature
<222> (1)...(463)
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gccatcggaa ggtgaagtga ggcacaatac tattgggttg cgggccaagt acacagggtt
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qcactqtqaa qqaactqaqq aqqttctqqq aqqqcctqqt qacaacaatq qatttqqqqa
                                                                        180
gatccacaaa ggaaattttc atttcctccc caggttagct attcagtggg tggattattc
                                                                        240
aqtcttttta aqcaaqqtca ctqctcctta qcaacatcaa caaaaqtqcc aaaqctqaqq
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acacagagaa taccatcatt gtcttttgtt tctctttatg cctggatggg gaaaggaatg
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gaaactaata gcagaaaatg aaacatttcn ggatgttatc ccttgccatg aagaatcacg
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<210> 148
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                                                                        120
tggtaaggag tggggaaggg aagcattcca ttttcttagg attacatctc aatcttttgg
                                                                        180
ntgggcctat gttgctgtac tgtgaccttt acaaatgttt cttaaccttt ttcctccttc
                                                                        240
cttaggttga cacagggaat ctaggagggt gactcgagtc agaggaacta tcttctcccc
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                                                                        360
aggatggggg ataaggactc tggggtaaag gcccttttcc ntggggagag gtaaggtctt
taatcatagg ggggaacatt tetgagggeg caettteaaa gggcatttae nttteecett
                                                                        420
nccctttncc agagccnggg gggaaggggt ntatcttngg ggtctttt
                                                                        468
<210>
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<211>
       496
<212>
       DNA
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<220>
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<223> n=a,t,g or c
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gagagtttga gaatgttcga gaatctctac cactcggtaa ccatgctggc tgttatatca
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gaaaaatcca taaacataca cagcagcgag ctgttttcac aagacttcct gctaataaac
                                                                        180
acaacacttt ctcctccact cagatgggag cctcagnatg ccaaaacggc aggatgtgcc
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aactaactat agggctcgtt gctaaggcag gaggaaatct attcaagttt gtccaggcaa
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attcqattgt acagtgggga tgggcgtctg cttctgcggg ccttggggaca ggggaggcca
                                                                        360
ctqqqtctnt gctqgctgtt cccctgtagg gcagggtcga ngctgggtng gccctttagg
                                                                        420
aqqqcaaqqq ttaaaatggg tttntcatgg gggtttagga acataagggg ntttttgagg
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<210> 150
<211> 438
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<220>
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<222> (1)...(438)
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                                                                        120
aggattaaaa atttaatatt taaggtgtgc cttaaactgc aaggttccct gattttattc
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tcatctagga atttttgctg ctttaggtag ctgacaacat gcagatccat actctatctc
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ttaagatttt cttttgggaa ctgattccag ggtgaaattt tcttagggga aggatgtggg
                                                                        300
                                                                        360
ctaggaggct ggggtatggc aaaggcatgt tctataggca agggaaaggc caggatggag
gtgagggggt caaaaatcta ggttattaaa attttagggg gngacactng ggttttaaat
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aaacntattt cttcccac
                                                                        438
<210> 151
<211> 371
<212> DNA
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<221> misc feature
<222> (1)...(371)
<223> n=a,t,g or c
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aatattttgt atttgcttgg tacatggttc aaggaaactc ttgtgtttgt gccaatcagg
                                                                       180
qaaataaact qaacaataaa cqacactqaa ataqaqtatt aqqcaatatg tagctttgtt
                                                                       240
tttgcttttt ttttttaaaa aaaaaccact gaattttttt ccacccacaa acacatggga
                                                                       300
aaqtqcaqqa aaccaqttaa tctatqqtqa tqqtatttqc catacqqttt acaaacnaqq
                                                                       360
ccaaattaaa a
                                                                       371
<210> 152
<211> 353
<212> DNA
<213> Homo sapiens
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                                                                       120
tagataaatg aaaatccttt attttgtaga attttaaagga ttgttaaagg ctgggtcaag
                                                                       180
gcaaagccac ctctattaga aggggaaaga aaagcaagat gaaacaaaat atgttatcat
                                                                       240
acatategeg tgtgctatga geatetttet acteetgeea gattgaaaat tetaggttte
                                                                       300
aacattette aggatttaac aagteaaaat aaaageegga atteaaatet agg
                                                                       353
<210> 153
<211> 429
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)...(429)
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aaaaattaga qtqaqaccac ttattattta atgattttta agagcagggt cacctttaaa
                                                                       120
ccagaattgg cttgaaaatg gagactgtga tatgcacggc taaaataagg gaaatqtcca
                                                                       180
tttgaactga gactagaaag catgactttg cattgcagct ggctctgttg ataaaaatcc
                                                                       240
ctcatccctt tgagtgttaa attgaaagac tangaaagca tttccaaggc gaagtgcttc
                                                                       300
atgnetgtet eteaggntte ceaeagetgg gteeegggge atgeetgtte tggatgetet
                                                                       360
                                                                       420
ncattgcgag ggaaactgcc nttcaccent agetcgtaat cccagetnet cgggggggtc
                                                                       429
gagggcagg
<210> 154
<211>
       203
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(203)
\langle 223 \rangle n=a,t,q or c
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atactcattt ttatgtttca atttatattc aaatttactc aaagntaata tcacccggta
                                                                       120
ttattaqaqa aqtctctcta aatactaqaa ctgacatttc agatccnttt gtaataatac
                                                                       180
tqccccata aaatatgcat agg
                                                                       203
<210> 155
<211> 319
<212> DNA
<213> Homo sapiens
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                                                                       120
gatatataca tgtacaaaac aaatagatat tactatctga cacctcaacc catgacttac
                                                                       180
cctaaatctc ctgatatgaa caattaatct actgggaggc ttttcccaat aagtttcaaa
                                                                       240
tttcttgcac aaagatttgc tgccattcat attctgtgca tggatgagga catttaatca
                                                                       300
cagactattt caacttaat
                                                                       319
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       276
<211>
<212> DNA
<213> Homo sapiens
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ccctttgaaa cgcaacaaaa agagacgatg atcttatgag ctcatttatg ttcatgcgtg
                                                                       180
aaagtgtgaa gatcactagc tttgctgtgt ttctacaagt ttccttgact gtaaaaacag
                                                                       240
tcaaaatgta accaacctaa ttcaagatgt taaatt
                                                                       276
<210>
       157
<211> 549
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(549)
<223>
       n=a,t,g or c
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catcttccaa atagcaaaat caattttata atttaaagac aaaaaatgct ttaactgcag
                                                                       180
agggcattta agacgtttca cacttacagg gctaatgaaa tgcaggacta gcataaaagt
                                                                       240
                                                                       300
tttttggggg gggtggggga gaatagattt tttaacataa ggagtcgata ggnaatcttt
aataattttt cccccccaaa taattttaag gtgctttaag ggccgcggga tcncgggggg
                                                                       360
ggtttccccc tctttttacc ttattatgga ntttaccata ttcctnaaaa atggatttaa
                                                                       420
atccccattn ccccttcagg ccncaggggg gnaagggggg aaatttgctg tgggggcccc
                                                                       480
tttntttagg ggagggtttc ctcctccagg cngctcctct ttaccgnccc cgtccggttt
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549
cgggccctg
<210> 158
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<213> Homo sapiens
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                                                                        120
aaattactqt ctacacgact aagaaaaaga ccaagcaagt gcaatgagta ataagttata
                                                                        180
gaaatagcag caactccaca agaaactgat aagcatctgc cactatcaac tctatgctag
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atqccaqqca tacaqtqaat qtqatqtqcc cacttcattc aagaagctca tcaggtggga
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                                                                        360
aqaccaatga ggtatcagtt taaggtatga ggatgaattt tataggaaag caggcatccc
                                                                        378
aaatgttccc ttatttcc
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<211>
       307
<212> DNA
<213> Homo sapiens
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                                                                        120
tqacaaaqtt cacaactttq tttgtggtca caaagctttt cagcaggagg cagctatttt
                                                                        180
tggtaccttg ctaagatcta gtatatcact atacgagacc ctacaaaaaac acacaaaaaa
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qcaattcctc atttactatg ttcaaggaaa cggcatggaa ataaaggtaa atttttaggg
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caaaagg
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<212> DNA
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                                                                        120
ccaggagaaa catttgcaca agttctccta tgacttgaga ttgcatctga gaagggtgca
                                                                        180
                                                                        240
qqqqqaqaac agacaqaaac aqcccactct qtgtgcagaa cgccgtgtgt cctcagtgtt
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tctcggggcc catagctcat tagctgcagt tggtatgaag cctgcaacct
<210> 161
       246
<211>
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(246)
\langle 223 \rangle n=a,t,g or c
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<400> 161 cacattttca ccattttatt cattaatgtt gtcagatggt ttagtggggc atgtggggaa
                                                                         60
agaagggtag gagttgtccc cccatccccg tgcacaggtc aggacatgct gggggctcct
                                                                        120
ggagggagag gaggatgggg teagectage ceeteceace ceagatttnt gegagggeee
                                                                        180
ccaggatgga gggtggtggg gggatgggca gacccttcag tccagggtag ggaagctgag
                                                                        240
                                                                        246
<210> 162
<211>
       344
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(344)
\langle 223 \rangle n=a,t,g or c
gcttgtncag gttctgttta ttatgtnctc acageettgt ttatagtaaa ggtgaatgac
                                                                         60
atgattccac tttacacgat aatgaaaaaa ctcaatgagg actccatcag ccaagcggtt
                                                                        120
tatatggcag atgagetget acaaatetgt tgtgtgeteg eegegtgaet eagetaatge
                                                                        180
taccggggtt ggagcgcaca ccgagcccag ccaccttttc catacctggc agagggaagg
                                                                        240
                                                                        300
gagtggaagg accagaaggg agtaagantc aggaaaggaa cagtttattg aaaggaccca
gagcccaacc taggaaggcc agtggcccat cctgaaatct ctca
                                                                        344
<210> 163
<211> 162
<212>
       DNA
<213>
       Homo sapiens
<220>
<221> misc feature
<222>
      (1)...(162)
\langle 223 \rangle n=a,t,q or c
<400> 163
cagaccctcc tttatttcct gancgatgtc acagcagccg taaaagaaaa ccagatgacc
                                                                         60
ccaaccaacc tqqccqtqtq cttaqcqcct tccctcttcc atctcaacac cctgaaqaqa
                                                                        120
gaganttcct ctcccagggt aatgcaaaga aaacaaagtt tg
                                                                        162
<210> 164
<211>
       451
<212>
       DNA
<213>
       Homo sapiens
<220>
<221> misc feature
<222> (1)...(451)
<223> n=a,t,g or c
<400> 164
```

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60
gcagaggcct ccacttttta tttcagttgt actcatctgt cccactgtgc aaatggagtc
acacgeteae teaattetga gaggeetgge aagnaaagag aaaagatgee cagageagte
                                                                       120
tgttagagtt gcatteteag actaatatet ttacagtett gagaaateae tgteagggtt
                                                                       180
tatttaaaat gcagattttt gaaggataaa ttttacgact aatttttttt aataaactat
                                                                       240
gcaggattgt tatttagaag atttgccaaa tttagagtct tcagcgatgg aaataattqq
                                                                       300
ccttcttqtc acaqtcttct gtttataagt gggtaaagaa agttttcttt ccagaaaaat
                                                                       360
acaqcaqaaa atccqatqqt tctqataqqa qttaattqtq qagatqtqcc agaqacaqca
                                                                       420
gcttcgtgga tggtgacacc acaatgtctg t
                                                                       451
<210> 165
<211> 306
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(306)
\langle 223 \rangle n=a,t,q or c
qcatqtaftc ttcaattcaq qqtcctqqta atcactggaa ccacaagttc aaatgccatc
                                                                        60
taqaccataa qgactcttat aaaacacaaa ccacttcatc atcaacaaac ctatttgcct
                                                                       120
actaqaactt ttaaaqcaaq qctqcaaact attcaaqtaa acaaccttgt ggggtggttg
                                                                       180
acatqqaccq aqaqctaaca aqaqaacact gqaattagct tctcagtttc aaaatangga
                                                                       240
cctaaaggag tttgcgctat aggagaagag ttgcttgcat tttgttttaa tgggaaataa
                                                                       300
                                                                       306
attttg
<210> 166
<211> 443
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(443)
\langle 223 \rangle n=a,t,g or c
<400> 166
taaacgagat gtttttaaga agtgacaaaa ctacttctaa gttcttcatt ttcctagtta
                                                                        60
ggacaatatt cacaggaaat tgaaattatt attctaacac ttaaagtgaa atcactgaaa
                                                                       120
                                                                       180
ctgttttcat ttacctgaag attttaacaa acaggggcat gcaggacaga gtacctcagc
ctctqtaaat qcctqqaaca ccccaactcc caaaqqaaqq caqaqcaqqt qcacatttcc
                                                                       240
agagaggaat tgcaaaggat gcccacagaa acaggtaatt cattaccaga gaaaagtccc
                                                                       300
tqatqttqqa aatctcatqq ctqaaqqcaq aaactcaatc cgggtagaaq ctnagtcaag
                                                                       360
ttaatccana tggaagcaac ttaaattagc ttttctttta aaagagacac ctagactggg
                                                                       420
tcccactcat tacctgccat att
                                                                       443
<210>
       167
<211> 423
<212>
      DNA
```

```
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(423)
\langle 223 \rangle n=a,t,g or c
<\!400> 167 ttgcaaaatc aaaaattttt tattccaaat acaatattct ttccaccaca cctcggctgc
                                                                        60
aaggcatttt gtagagaatc tgtctgggga gagggatggg tactggaggc acatccgggg
                                                                       120
caggtaggag acctggtggc caagactggg atggggtggc accatggggg tatcgaggac
                                                                       180
qtqcatctqc tccaqctcca tqtqqcqqta nancnqcnqc ancnqcnqqq qctncanqct
                                                                       240
cnngaacnee ntnaanttgt teteggegaa etetegaaet egetgtgeae agtggtgggg
                                                                       300
qtnnaaatcc cagtaanggt cgctatngct ctccccatca ctngctgaga taatgggtaa
                                                                       360
tactcgtgcg ttttngcgtt tggtataaan cccngtcata agggcaccan gtctttctga
                                                                       420
                                                                       423
tgg
<210> 168
<211> 436
<212> DNA
<213> Homo sapiens
acactecaaq cacteacaaa tqqettteac aaacaettaq eetaqqetqq aacacaaaaq
                                                                        60
gatatcacaa cagagtccat tgggttttac ttgcttacat caccaaagaa tgttcatggc
                                                                       120
aqttaatttt caqqctqtaa aaactacatc tatqqcacca acatqqaatt taaaaaacaaq
                                                                       180
ttggatttca aagtacccca aatgccaaaa actgaaagta ctatcaaacg ggtctccaaa
                                                                       240
gaagtetagg atgetgtgat geaggeetgt ceatatacet eeetggaeee teaggtgeta
                                                                       300
cctacaggcc tctgctcatt tcccataaac attacctcac catcccagga caacaaagga
                                                                       360
atgccatgta agaaacaaac aagactggtt atctcctacc acaaacagga atacagaaaa
                                                                       420
catggggcca gattcg
                                                                       436
<210> 169
<211> 461
<212> DNA
<213> Homo sapiens
acaacagcat caaatatcca gggaacttta tttttaaacc ataaatcaaa cagacacaac
                                                                        60
tttcattqac ccaaatatqc ataatccaac ctqaatataa aatqcactqa atagqtaaat
                                                                       120
tacatgatac aaagggaatg taattttaca aatgtgaaat gattgatggc tacagcaatt
                                                                       180
taacaaaata attaaaacat tqtatgttta aaaacaagaa tatcttaaag ccaattatct
                                                                       240
                                                                       300
atagtaaacc aagggaaatt ctggtatgga atgatttgat tcaaaggaaa taaggcacct
gctataaatt tagagaatat ctttcacttt taaagttata gtaaaataga attagttaac
                                                                       360
caaqactqqc ttcaqaqqqa accaaqttca gggattcact tacaqggtga aaagaaaatg
                                                                       420
atcaatcaca acctacgaag tcatacaaag gaagactaga c
                                                                       461
<210> 170
<211>
       363
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<212> DNA

<213> Homo sapiens

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<400> 170
aaatttaaaa agccaacctt tattccactt tgaacaagtt tgtgaatgtc caaataaggc
                                                                        60
tccttqaaaa tttctccttc aggggtaagt atcttcacat aaccttcttt ttccagaatg
                                                                       120
aagagacgtt gcgagccatc cccactatgc agggcaccaa cgggctgccg cagcccacat
                                                                       180
cacaacetee tgaatacaga agcagttgtg tttgtgettt etgetgatet ettecaettt
                                                                       240
qtcatattct tccatctggt ccaagtagtt agatgctggt cctctgactt gttttcttqq
                                                                       300
aaaatctqqa aaqcacaacc caccatcttt tcttqcatag taaaagcaaa actcatccqc
                                                                       360
agt
                                                                       363
<210> 171
<211> 428
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(428)
\langle 223 \rangle n=a,t,g or c
<400> 171 taaaattaat cgtgaacact tttcttggta aaaactcaaa tacagaggat aggcaggatg
                                                                        60
totocotqce cocaqtttta ottocoqace caaaqqaaac ctgqtaactg getgtcatce
                                                                       120
tcccagaagt ttttctatgc ctttatttat taatgtacac ttgtaaaaca gcatttgggt
                                                                       180
ttqctqttat actaatqqcq ttataacata catacattqc aqctcttttt tcatttaact
                                                                       240
gageeteaga aateetttee atatataeat gtagatetag geeattettt ttaaagetga
                                                                       300
qtaatqtttc ataqtqtqqq cataatacct acacttqtqt atttccaqta aqcctttaca
                                                                       360
gatactacta ccntttttcc tttaaaaaatt aaaaggtata atattaataa aaattccccg
                                                                       420
                                                                       428
ggaatttg
<210> 172
<211> 466
<212> DNA
<213> Homo sapiens
^{<400>} 172 atttttata acagctttat tgaggtatta ttcacatacc atgctttaaa aatatacaat
                                                                        60
traqtqqttc ttaqtacatt caraqaqttq tqraaacatc acatctaatt cragaacatt
                                                                       120
ttgatcactc ctcccaaact ccataggcat tgactttaat gtaatggcat atacatatat
                                                                       180
aqaaatacat atagaaacca attattctag caccatttcc attctttccc cagggactgc
                                                                       240
aacatcatct gtcataaatc aacttttcat gtctgtgtga atttggtttt gatctcccta
                                                                       300
ttgagagact ggtgtacagt atttgtctat ccctgcacaa attattaaag caagttttgc
                                                                       360
cattetqtta teetteetea tqaatatett gattaetttt ggeeetaaet cateaagtte
                                                                       420
cacagaaatc ccaattggaa tcctaggtta aaattggtgg tggtca
                                                                       466
<210> 173
<211> 406
<212> DNA
<213> Homo sapiens
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<400>
      173
gtagcttgcg tattattttg agcatctttg tttattaccg ctagaaggca ataactagta
                                                                        60
caatgcttta tatgtataat atatacttat atatgtgtgt gtattccttt aaatcagatt
                                                                       120
ctgattatct gaacatactt atttttaaaa gacatccata gcacactcta ttctttatgt
                                                                       180
gtaaggataa acaatccaag catactgtga agatcctgta acatatagct ttatgacttt
                                                                       240
ggtttaattt tetatteece agteeacatt gettgeegge gtteteetae eetgeatatt
                                                                       300
ctgataacag gagcaaagtg actggcattt tcctccttct atggaaccag gggattcact
                                                                       360
                                                                       406
agtgtttttt ctatataatt cactggcaga gctataataa aacaag
<210> 174
<211>
       272
<212> DNA
<213> Homo sapiens
^{<\!400>} ^{174} tttttttt taattagetg ttettgteat atagttttat teetttatet ttttttgaae
                                                                        60
attitataca cocttatite aatgiteett tiagateact etattetett taetetetgg
                                                                       120
qctttgaatc tccttgtttc ttgtatctgc tgcctctctt tgggatacct gggagttttt
                                                                       180
cctctgacct cgtcttcagt aggaaatgat tttccatgag aatcctggtt cccctggatg
                                                                       240
aggacggtgt ctcctgggga gaatgtcctg tt
                                                                       272
<210> 175
<211>
       196
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222>
      (1)...(196)
<223>
       n=a,t,g or c
<400> 175 caatagcaga cttttaatca atgccagaga caaagtgagg ccgagctaag aacacgctca
                                                                        60
gctncgttac aatgaagaaa tggtttcctt tcgatgcaaa gtataattgt aaaccacagt
                                                                       120
gctcgcacag ttcacgnctg nttaaagnga aatcttagcc atacatcacc taaaagtaat
                                                                       180
taaaaagtca acacag
                                                                       196
<210> 176
<211>
       417
<212>
       DNA
<213> Homo sapiens
<400> 176 ttttttttgg catggctttt ttattctctt tgcagccaag acctgttttt acaattaaaa
                                                                        60
ccaaaatttt gaatcacaag gttcctatgt ctatgcatac ttgggaactt agtgtgagga
                                                                       120
                                                                        180
aataatagtt aattgaaata ctagtggaac tgttaaacca caaatttaga ctaccaggag
aaactgaatt atttgatata ttacatgtaa tgatgcacgt tatatatttt acatatatta
                                                                        240
                                                                        300
catatatatc ttgttaggtg aaatgggccc acttgactca ctgaacttta ttttttagac
agagtetege tetgtegece agattggagt gtggtggtgt gateataget egetataace
                                                                        360
tcaaactcct gggctcaagc attcctccca ccaaagtcct gggattagag gcatgag
                                                                        417
```

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<210> 177
<211> 413
<212> DNA
<213> Homo sapiens
<400> 177
ttcctatqct ttttttctat tttaggcaca atgctttaat aaattacaca aagactacaa
                                                                       60
acctttatta catcaattgt tacaaaaggc taagtggaga aagattactt atctgaagct
                                                                       120
qcacaaaatc aqtgqqcaat atggatttca tttaagcttg tcaattctcc tggattaaat
                                                                       180
tcttqqcqct qtctcacata ttcccaagtc ctacatgtag aatgctaaaa gttgcagtta
                                                                       240
                                                                       300
ctaqqttqqq aaaqccatqc ccaqacqccc ctgtgaaaaa catatcaata tattaagttc
cttaqcaaat cacatctaga ttaagttcat aatgettttt tttttttaa ctttgcaaat
                                                                       360
ctccaaactt ttgctacttt cttaataaaa tacaacaaaa tttttggcat tcc
                                                                       413
<210> 178
<211>
       233
<212> DNA
<213> Homo sapiens
<400>
aaqcttqacc taaqcataca caqaaaaaat taatattttt gttgttgttc tagattctat
                                                                        60
tattcaggca ggctttctat attttcccct taggtatcta tactttagta tagatgctgt
                                                                       120
cactgtgaga gactacagaa agcagggaaa atagaagttc tatagcttca tctaccaagg
                                                                       180
aagatctagt ttaaaaccta gtaggggaca tgtcccaaca acttgaaaat tag
                                                                       233
<210>
      179
<211>
       314
<212> DNA
<213>
      Homo sapiens
<400> 179
tatatacgaa ttaaaattta tttcaaactg ttttgtacat ctttttaaaa aatgaaaatt
                                                                        60
caaaagtctt agaattaaga atgagtcttt gatatcataa agctgtgtat aacaataatt
                                                                       120
aaagtagtgg taacatttta cccttgtaaa aatgtcacag aattaaaatc tcaacttgga
                                                                       180
                                                                       240
tcctcaatga ttcaactggt ttatcttaca caataagcgt ttggtcagtt tcaagataaa
atttccccag acatgctgtc cttaagtcct tcctcctcac catccatcag ctcacacatt
                                                                       300
                                                                       314
ggggtagctg gctg
<210> 180
<211> 319
<212> DNA
<213> Homo sapiens
<400> 180 ttttttttc actqtcacca tqaatttaaa tttattgagt gccccacaaa tgctagtcta
                                                                        60
ttctcagtac atttgatgaa caccatttct ttatctctaa aggatgagag aatatttgct
                                                                       120
                                                                       180
actatatatt ttttttgctc atcacccagc cagaatacaa atggaactcc tatgaatatt
ctaaagcata atgaggaagg ggctccaggc taaatgcaag tatccttgat taatgttttc
                                                                       240
cccaccactg ggaatcaccc tcccccgctc ccctgaagct tccccacaag gtgcgggggg
                                                                       300
                                                                       319
aagcaggaga aaaaaaagg
```

```
<210> 181
<211> 194
<212> DNA
<213> Homo sapiens
<400> 181
ttttttttta caatgtgttt attggacaca caaaaaaact ttgcaaccat cataatacat
                                                                         60
caatatttaa cctaqataat tctgaaataa tttggattct ttcatttttc aggatttgaq
                                                                        120
ctcatcaatt atgttaaatt tcctatattc tgttacaaat ataatacaga tttcataagt
                                                                        180
ctgccttgat tcac
                                                                        194
<210> 182
<211> 247
<212> DNA
<213> Homo sapiens
<400> 182 ctagttttgt ctttttggca aataggagtc cctcagaatc tacacttgct ctgaaatgta
                                                                         60
gaaaaattga ttcaataaag gacggtggtg aaaccgtcct ttgagatatt ttacttttct
                                                                        120
tettaaagag catacaettt ttaatgateg tgtgtgtgtg tgtgtgtgtg tetgtgtgtg
                                                                        180
tgtgtgtgta aaccetttaa aaagagattt tggaaactga attetgggaa egtttttttt
                                                                        240
tttttcc
                                                                         247
<210> 183
<211> 289
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(289)
\langle 223 \rangle n=a,t,g or c
<400> 183
agaggttgat aaatgctttt aatccccaca ttccacacac gggggacgct gtcattcaca
                                                                         60
ttttcatatt tctgttctgg tcgcagtctg tgtcctcacc accctcatga atgagggact
                                                                        120
ttgatagatg cctgggtttg tgggctctgc ggtactggga aggagataca caaagggtcc
                                                                        180
teggaggagg gtgtgggana getttgaagg ggacaaccac tgengacacc tggaggggag
                                                                        240
ctaaggggaa natcctgaga ctttaangag acattggaat ggcttgggc
                                                                        289
<210> 184
<211> 567
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(567)
\langle 223 \rangle n=a,t,g or c
<400> 184
```

```
attaggagat aaqtttactq ttcattctac aaaqacactt aactcatgga acactgagtc
                                                                       60
actctaaccc ttgacttcat tacacaaaat gaaacacttc tgaagaaata cagaatttct
                                                                      120
taactcacqq caqqatcaaa qaacaaaqqc tcctqctttg gcatttcaaa gttgaacaga
                                                                      180
gttctcaata agaaggccac agtcaaatac taatggaatc tcaactctaa attaaaatga
                                                                      240
ctaatcatta aactqttcaa cttaqaqtaa taaaaqattt ctaqatacaq accccqctqq
                                                                      300
cctataqtca gtctgggaag ggctagaaag aaccaaccca tttgtgtggc ttccgtatct
                                                                      360
teettqeaca aqeaatqqaa acceageagg gaaageagtg gagetggeag agggeagggt
                                                                      420
gagaagacac ccagtgagga ctgacgggag aggagaggcc agggcagcct caggtacagc
                                                                       480
tcatacctqn acttccttqq cctcaqaaaq qqttqctqtq attqnccatq qqtccctaaa
                                                                       540
qqccqccaga ggcctttggt ctggaaa
                                                                       567
<210> 185
<211> 423
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(423)
\langle 223 \rangle n=a,t,g or c
<400>
gtggacactg aagtetetge ttggttagta gteatetaat agttgtacae ggattteete
                                                                        60
aaacacttgg aatcaataat tcaaccagtc tctgccaagg agctctgtgt gaatgctgag
                                                                       120
gcacactcaa cacteegeea tgcaattgac aactetgeat teeetttaet tatggettgt
                                                                       180
gcaganctca agatcagctt gaagtgagag cttaaggctt tcttgggttt ttcctgagca
                                                                       240
totgcacagt cotgggcatg gatggagtoc tatttatgca tttggcagto tagattgcca
                                                                       300
ataacacttt ggaagctttt caaagtccct atgaaaatct ctttttccag cttctccttt
                                                                       360
taggettttt atttageeaa ttgettteee ceaactgtta tacattaace ceaggeagee
                                                                       420
                                                                       423
aca
<210>
       186
<211>
      219
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(219)
\langle 223 \rangle n=a,t,g or c
       186
aattgataaa ctgagtttat attcacctat tggaaacagt acaacatatt ttacatcagg
                                                                        60
ttatqaaata tqqatqtttt actaaaaqac aqqaaqaqct ttttccaqtc tttaaaqtaa
                                                                       120
atacatattc aaagaatctt aaggcatacc atttattcat attcatatct attgaaatac
                                                                       180
                                                                       219
tgtacatcca catacttcaa taaatagtta aaaaccnga
<210> 187
<211> 477
<212> DNA
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```
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(477)
<223> n=a,t,g or c
<400> 187
gaccatatat tctatttatt tatcttattt attatccgtc tctcccagct aggatgtaag
                                                                        60
cctcqtqaaq qtqqaqqaqq ggggcttatt tctgaatctc cagcatctag attggtacct
                                                                       120
gccacacaaa tatgtgctcc ataaacaaat gcactttttc ttttctgcac tccctgggtt
                                                                       180
gcaggetgca tgcgaanacn gtcctcaagg ccagggatct gtctcaagcc tttttgaaaa
                                                                       240
ccacccettt cctacgtgcc ccacacccag ctctagcagg gtgccctcct gcccctgagc
                                                                       300
                                                                       360
ctqccctcat catgcccatt gccgaggcct caggactgaa tcacattttt ggagtcttcc
caggataagc caataggcat cattattcta cagcgatgct catgtataat tataattatt
                                                                       420
                                                                       477
atcctatatq aacqatccat tqctqctqtq taattccaat gqnaattact gggccta
<210>
       188
<211>
       501
<212> DNA
<213>
      Homo sapiens
<220>
<221> misc feature
<222> (1)...(501)
<223> n=a,t,g or c
<400> 188
ngaacggtct ataagatcca gatgtttatt tcaaaaccca aacccttgtt accttgaaga
                                                                        60
atctttacat atttacgtaa tacactgtac attatatgca tggcctgttt atactatttt
                                                                       120
caaaaagaga atattgtttt aaactattaa taaaccaaaa ttaattgata gggcagcatc
                                                                       180
aatctgtatt ccatccttgg tccatggatt tccttaaatg atggcatcat gttcatctat
                                                                       240
                                                                       300
ggttcgatac cgaatgcctc ttcttgagta atacattttg catccaatgt aaagaataga
                                                                       360
taaaactccc agcgttaata caataccacc aacaaagctc ccagtatcaa attttgatcc
tttctttgct tcagaatgca tagttgttgt gattgttact gatgaagcag cagatgtcac
                                                                       420
tgaactattg tggggttacg gtcattggtg gatgttgata tctgagatgt gtnctgtgaa
                                                                       480
acacttggtt ggttttgggg t
                                                                       501
<210>
       189
<211>
       310
<212> DNA
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gttgtttgca atgattggca aacggatgag ttaaaaaagc cttctgcttc cacactgttc
cgtctacatt cagaaagcag taaaaatata ttcgtgcaat gaacactttc caccttaagc
                                                                       180
                                                                       240
gtatcatgac agttcacaaa tttgccaaca gacaatgcaa aacaatattt acaagataga
ccctttgtaa gttccaaatt tagatacttg tggtgtaatt ctaaaactaa catcgcatgt
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tagtatttgt tgtatagact gaaccatcct ccaaaatttg gaagtcagga tcacttgaat
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gaattagatt tgcagctgta aagcactctt tcaggttaac tctaccaaca agtttctcgg
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catctagttt ggagggaaca tgtaatgtca catttttgca ggcatcactg gcaaatatta
                                                                       240
                                                                       300
agategegag ggteageagg ageageegge agagggetee gtteeaggag eeggaeggge
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ggngctgcct ccatggagag ggctcggggc aggtcgcggg ccgancgtcg ggccgggggt
taggaggget eegeggggeg agggeegegn eggaagegea gtetgggeee getgeteagg
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aggaacgcga agcganggag gttgggg
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                                                                       120
gagaatgaat gtaggacaag tgttaggaaa catggcaata aattagaata taatttacaa
                                                                       180
aagcaaaaaa attaacagtg taccacatta ttactgagta taaaataata agcaacaact
                                                                       240
                                                                       300
aatcacaata atacaaaggt aatttegtte tgtgttaetg aggataeeta tgtgacatte
attcaaacaa aaaagttcct aatgaaatgg actatttggg aaatcatatg tatctcacgg
                                                                       360
ggtttaatca ttagggtaca tttaccgttc cctttttagt aggactttat cccagtggca
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gatactgctc ccaggtgtaa g
                                                                       441
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<211>
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<213> Homo sapiens
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<223>
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tototototg tgaatcatot gtoagtggtg atgatoacgt taagtttoag aagtgtagta
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catgatactc ttaacaattt gtctaaagca atgtttctca accaggggca attttgctcc
                                                                       180
                                                                       240
taaggggaca tttaacaatg gagacattct tgggttatca taactgggtg aagaaggcaa
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qqqtatqtca ttgggcatct aggtgaggtt gagggctagg ggtactgcct aaagntccct
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<211> 409
<212> DNA
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<220>
<221> misc feature
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ttqqqqqtat qqaqccgcca caqttccqgc tacctaagcc ctcctgggtg tgtgttgcgt
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acticttecet ataqqeaqtq qateacaqee atttaacatq qeetteetee accatqqeee
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atcttctggn cagaaaaatn ccacaagcct ngcagagngc cctctaactg cttgggcttc
                                                                        300
tacacacaga cctagtaatg gtcttctgtg ctgcaaggag agnaatatna agctcaacat
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ttaacatttc tccaagtnca gaaattcatg ggcctcccaa actccacca
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<211> 395
<212> DNA
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qctatqcqaa anagancaac caqccaqatt cggcccacgg tttaaggcca gtttaagcct
                                                                        180
caccacette etaqeeecae teacetattt tgteetetea tetteetgte etteageaee
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eccatgacet teetgtgace tteaatggee cetecagetg eegtecagee etgtetgtet
                                                                        300
gcccttnggg gaccctctcc tcctgggctg caggactgtt ttttcctgga gcaggtctct
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<211> 482
<212> DNA
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<220>
<221> misc feature
<222> (1)...(482)
<223> n=a,t,g or c
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tgtgtgtgta tttttttcta gatactagtc ctttgttgga tgtgtgattt gcaaatattt
                                                                       120
cctcccagtc agtagcatgt cttttcattt ctcttttctg ggcctttcac agagcagaag
                                                                       180
tgtttaattt tgatgaagte caetetatee atttttettt ttatggatea tgettetggt
                                                                       240
atcaagaact ttgcctctct ccttagatcc cccaaatttt ctcttttatg ttgttttcta
                                                                       300
aaagtattat agtttacgtt ttacttttaa gtctatattc cattttcagt taattttgta
                                                                       360
taaaatgtga gacttaggtc tgggttcatt tttnttgttg ttgcccatgg atattcaatt
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acteceaaca tgatatttgg tegaaaagge nettttttgg ecaatgaatt ggtttttnge
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                                                                       482
ac
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       397
<212>
      DNA
<213>
       Homo sapiens
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                                                                       120
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tgcggcatgg cggtggcgga agtggtggta ctgggcgtcc ccaaccacgg ccttgaagcc
                                                                       180
                                                                       240
gtcgtctgac gcgatgatga gcacctcgaa gggctgcccg cgctggaaag gaacgcccgg
cccgcgctcc tcgcggcccc aaggaagcct tgctcctttg ctgttgaaga ccacctccga
                                                                       300
                                                                       360
cgtgtccagc cgggggttga aatgcagcgc ggcatcggag ccctgctcct tccccgcaca
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gcaggtttta caatggaacc ttgcttnggc atttggg
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<222>
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<223>
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gcatgggcat gcattacatg gttcataatg ctattccaat taggcttttc atagtgcctt
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ctcataacgt cctttaaaaa aaataataac tgaaagggaa aagaaagtgt caattgcaat
tacatttaca aaaccaaact gctgctttca attagagtga atctgtgctt cgctactcag
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atatacacat gtagattttc caaggcccat gcacacactt ctgtaggggc agaaattttc
                                                                       300
                                                                       360
tatgaataat ggctttagca accegaatag tatctctaaa cattgacaag cttggggaac
                                                                       420
agggcaacaa gtgcaatgaa caatacaatt tctaacgttt gtcccagtca acataccact
                                                                       480
ttgccctgga gatatttaac acagcatttc atttttggaa tgataagggn taattcntcc
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aatttanggg gattatacng	aatataccna	taa			513
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<213> Homo sapiens					
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qctacctaca gtttggctta	-				180
tacaagtatg tactatgtac		-		3 33	224
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aaaaatacaa ttgattttct	gtatattgat	ctagcctgtg	accttgctga	acttgattaa	120
ttctattaca ctatgatttt		_			180
aaaaaattgt cagagtggcc gagataaaat ttagtttttg	-				240 300
atggcctact gccatacaac					360
agctaattac tggtggagcc	-	· ·			420
tccccattcc agtgggctgc	tttctggt				448
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ccctgtgttc cagaaaca					378
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tttaacatga ggaaggaacc					180
	- 5	J	5 5-55	5 5	

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gateetttte etgtttetta getgacaaag aetttettea getageeata aggeaactgt
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aactagatgc aaggaagaag tcagccagga tgactgtggg gctgggtcat ttctcagctt
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       393
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cttcagaatg gaagaattta tetgeetett atttgatgtg gatcagaget aagatggetg
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actaaataaa catgggggac tggaatctcc ttggagatac tctggaggaa gttcacatcc
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actocaccat gattggaaag atotggotoa coatcotgtt catatttoga atgottgtto
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tgggtgtagc agetgaagat gtetggaatg atgageagte tggetteate teetgeaaag
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aaacctaatt gctacggggg ccggaagagg aataggtgcg gctccgacag ccagaggggc
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aacagcacaa catcctcacc tcaaggagct cagcctggga tgaagacaga cacacacaac
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ggttctgaaa gtgttcttta gtcacagaga ccagtaggtt tgaaacccag tgatgttact
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                                                                        120
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acaccagcag ttettettgg tetgagteet tteetggetg cagcagagag aacagagaaa
                                                                        180
                                                                        240
gcgcaacact gtgttcatgg tgctattgta attaatgtat tataattatt ttgtatcttc
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tqttaqatct tctgccttga ttcccagtgt ccaaatacaa aagtattgac tactgtccct
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qatqtqaaqa qcaqqatcta ttgaagccga acacatcatc tttcagttcc aqqtaqqaqt
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tgaacagtta attottgtat tgottggaca toaataaato taataaaaac gaccaagaat
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agtcactcag ttttacaata tagaaggcag agaaaactct gacactccaa gttgtgaaga
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caatgaaaca ttccagtact ccattagagg actttttgta tctacagctg cctgtgcttt
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gaaggtaaaa acccagaatt taaattcaaa catattcagt taatgcactt atgcatttta
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tgaaagtcat caatgtaatc aaaattccca agaacaggac agtaacagcc ttacactgac
                                                                       180
tattttggtg agaataacca caaatgtagt tttgatctag gatgaaacca aatgtgagga
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                                                                       300
gaatgattcc agctattgct cccagggcac taagaaaatt cattattcgg ctcaatatta
tcagagtttc tgtggttttt cttttcactg caattaggag ggctccagaa ttaatgaaca
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aaacagagcc ccagaatgga ta
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                                                                       120
                                                                       180
aaatccacaa aaaactgtca catgacagag gccagaatgg agctgatgca gctgcgtcat
ttcctacaga cctagttgac catgtggaga agaggcttga acaaatgggg acgttctcca
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accttccaaa tc
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                                                                       120
agetateagg aaaccateet egegtaaaac gaagcagege tacagaagtg ggetgecatg
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ggaatcggga ggcccaggtt ccactgctaa cttgctgcag cttactgggt gattgtctct
                                                                       240
cgcgagaaga cgggccgcgc cggcgatacg gattccgagc gagtggtggt ggtagtqqtq
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gtggtggcgg ccgagacgcg gcggccatat ttggtgaggc ctcgggagcg gcagacnnqq
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gaagaggca
                                                                       429
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aagaaagtee agaaacatat eeacacatga atetttgaet tatgacaaaa ttggetetgt
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agagtagctg gaaagggaaa gtcttttaaa taaattgttc tggattaatt tgatatccat
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ataaaaagat ataaaatatt cttcaaagtt aaagccctaa atttaaattg gtttatgtaa
                                                                       240
gaaatccqtt qacactqatq aattaccctc actaaqqctq qqaqqagqaq aataatcttc
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catgtcagaa tctgacggac ttcggtttcg ataacgacca ccacctgaac tcc
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cacctgaggt caggagttca agaccagcct ggccaacacg gtgaaactcc gcctctacta
                                                                       240
aaaatagaac aattatetgg geatggtgge aaatgeetgt gateeeaget atteeggaga
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       214
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caggeateca getetgetga ageaegeagg ggeeetgaet teeteattag gtatteteaa
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                                                                       300
cacctccacc agcagctggt aggcagcaga gctattgtta ctgagctgcc cacggaccaa
tggatctatg aatgaacctg aacgtcttcc ctggagaaaa gcacttgctt gtcaagggag
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                                                                       417
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taaatgacga gttaatgggt gcagcacacc aacatggcac acgtatacat atgtaacaca
                                                                       240
cctgcacgtt gtcgacatgt accctaaaac ttaaagtata aaaaaaaaa gtcaggaaac
aacaggtgct ggagaggatg tggaaaaata ggaacacttt tacactgttg gtgggactgt
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aaattagttt aagtattgtg gaagtcagtg tggcgattcc tcagggatct ggaactagaa
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tgctataaaq acatgcacac qtatgtttat tgtg
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tacccctccc taagccctta gtgtgtgccg agcttgcttt ntgatgttgg caggggaggg
                                                                       120
gagacctggg tggtgnctga gttcccttta tcaaaccctt caatgggcac aaaattgagt
                                                                       180
qcttnnttnn taqqttttat ttnnnnatqa atqtccaaat ctgtgtttcc ccctgccana
                                                                       240
acagactgtg tggccagttg aaagtgtctt ggtttgtggt tcatctctcc ctcattttct
                                                                       300
tqqaqqcaqq gcctgaganc cctgncanaa tctcctatgg ttntgaatcc acggcttctt
                                                                       360
                                                                       387
tttggacatt aaaggttgat ttgatgc
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       218
<211>
       481
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(481)
\langle 223 \rangle n=a,t,g or c
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                                                                        60
ctgcaacctc tgcctcctgg gttcaagcga ttctcgtgct tcanccacct gagtacctgg
                                                                       120
                                                                       180
tattacaqqt qqctqccacc atqcctqqct aattctqtat tttttataga gacaggtatc
tcattatgct gcccaggctg gtcctgaact tctgagctca agcaattcac tcaccttggc
                                                                       240
ctccccaaag tgctgggatt acaggtgtga gccactgcac ctggttgaga cactactttc
                                                                       300
                                                                       360
acacactttt acatttcaca cttctatgaa gacagggtct gcaatctggc aatgtctatg
atttagtggg aggtagaagg aggcccaggg acagaaacat aaactttcca tgtcaggatg
                                                                       420
ttggctgtga caagcatgcc caagactttg gacatgattt ttctgttcta gatctgtttc
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                                                                       481
С
<210> 219
<211> 478
<212> DNA
<213> Homo sapiens
<400> 219
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                                                                      120
gtcatgtact accatgcccg gctaattttt taatttcctg tagaggtggg tgtttgtcat
                                                                      180
gttggctagg ctggtcttga actcctggcc tcaagtaatc tgcccatctt gacctcccag
                                                                      240
aqtgctagga ttacaggtgt aagccattgt gcccggcctc catgatttta gaaacaccgt
                                                                      300
ttttctttac ttaatttttt cttaattaga aatgggccca gacatccaac aagcaattat
                                                                      360
tacttaattt aaaaatttca ggattttaaa atatatgaaa actctattta caagcattta
                                                                      420
tttttaattt attggagatg gagtetaete tgteaeceag getggagtge agtggagt
                                                                      478
<210>
       220
<211>
       623
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222>
      (1)...(623)
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ctgcatcaag tttggtgtcc tgttgcagaa gctgagcatt gacgggacag aggcataaac
                                                                      120
tgcagcgctt gataaaatag agcccagtat tctgaggtta gtgaagaaaa cacaaagact
                                                                       180
tgacagatgc actcccagat cgcatctcac agtcattcaa ggtttagggc aaagcatttn
                                                                      240
                                                                      300
catgtggagn ngnaccttna ccttntcccg nccagtcatg catcttggaa gttccttggc
taagtetgea gggaaggaga ageageagge ttgatttgea teaataaaag eagegatetg
                                                                      360
tgctggccat gctaaccctg ttggctatta gggggtgggg gcactctgtc aaggggagtc
                                                                      420
actgggacgg tgtaggattc agccttcaga gcctgctggc ctgaccgtag aaggaggaac
                                                                      480
etgeacacae cetgetggtt ttagtteacg ageagetate aaageetgtt agecateetg
                                                                       540
gttacctgct tgtgccagan agaacttact gtcccaggta agcncctaat tttttaagtc
                                                                       600
                                                                       623
ttagttcctg tcaaaggcca ctt
<210>
       221
<211>
       457
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(457)
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                                                                       60
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gctggccgaa gacgaagcgt cctccctgga gtcgggaaca agtcacctct gaccacacct
                                                                      180
cetetgaege cateacetee teetggeece acceaagge tegacacaag ceccaaggte
ggggggagag gggcggggcg gaaccgaggg cggaggcaag gtgggattcc aggaaggcct
                                                                       240
                                                                      300
teegaagatg ggaeggtggg teetgteeet eeaggtaget tgtgggtgtg gaeageagga
                                                                      360
cttgctggct cagtgtgggc acaaggacac tgtgccactg gttgagtgag tggtgaggga
ttggaggtgg ctcccagagg actccatctt gcatggccct ggccttgtgg cttccagnag
                                                                       420
```

```
457
qcttgccctg gctgtgggta agccangagc anatgcg
<210> 222
<211> 325
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(325)
<223> n=a,t,g or c
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                                                                         60
acacaaaagt tgggaagaga aggatgtcaa ttagactaca tcaaaatctg ggcagaggga
                                                                        120
ggacaaagag ctgcctaaag aaactggtag ctggagcaaa ctgcagagnt caagatgacc
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ctagtccacg gaaccagcag cccaggncag ccacnttcag gngcaccacc cgnggcacgg
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caqqqaqaqc aaaqttqctq gccccantca ttcctccttt tcaqggcagg agaggcagaa
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gctcactntt tagacatgtt cttga
                                                                        325
       223
<210>
<211>
       355
<212> DNA
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<220>
<221> misc feature
<222> (1)...(355)
\langle 223 \rangle n=a,t,g or c
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                                                                         60
tatttaaaat aagttatttt ttacaacctc cttatataaa agatgtttat gaaagaaaaa
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attgagtgtg tctcggtgcc attttttaa tgcaatgaat gatatccatg aaaaaggaac
                                                                        180
                                                                        240
atctgaatct tttgttttaa aagacagtgc agggtatagg tggaatttat gggnggatac
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atcccggata aatttgccat aatggaaatg agggagaggt ggtataataa tttttttcta
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       224
<211>
       433
<212> DNA
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<220>
<221> misc_feature
<222> (1)...(433)
\langle 223 \rangle n=a,t,g or c
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ààanaggagg aaaaaaaagt agatgactcc ctcaggttaa agagttgtgc tattcaacaa
                                                                         60
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gaageggggt ettggtttge egtetgggee atatgeegga gatatetttt tttgttataa
                                                                        180
tgccaaggag gcgcccattg tgagttacaa ggcactgcct cagtcccagc tttcggaaaa
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tatccaccac gatctccatt ggggtgtggg tctgtcactg taaaaggggc tcatgtcaag
                                                                        300
gaatgetteg aagetteaat gggeegaggg aetttetget ggggaagaga tggggggtnt
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gctgtgcaaa acacaccccg aggaactgcc cacgntaccn tcttggtttt tcccggggat
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                                                                        433
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       189
<212>
       DNA
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       Homo sapiens
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                                                                        189
acaacataa
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       222
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       DNA
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acaatgggcc aggtaccccg catgtaaaat caaaatntaa gggtcttttt aagggctgga
                                                                        180
                                                                        222
aaagttgctg ctggggcatt gcagttaatg ggtcagacat tt
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       227
<211>
       570
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<213>
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<220>
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<222>
       (1)...(570)
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       n=a,t,g or c
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taaggcacta cccccagatg ggagggaagg gagggcnact gtgaactcaa gtntgagggg
                                                                        120
                                                                        180
gtcatctgca nnaagaccqq aqttgcttcc atgtcactct cctctcaaga gaagctgcta
tttcagggta aatggagtct gctctcatcc atggttaaaa gtggattgag acgntctaca
                                                                        240
gaganttcca tcttctttt aaggaacaca tccgaacgan ttcagaaggg aaattttgat
                                                                        300
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atttaaaant cagtgtctct cacttcccac tccatccncc acctcccttt ntaagctcag
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agcacagcgt tcctacggtc cagccaggga atctttccag aaaggggntt gagagtttcg
                                                                       420
ggcccctgat gggagcggct catttgctgg ccgtgaacgc tgggtttccc gtgatagctc
                                                                       480
teceaaggtt eagggegtga ttgteatgtg tacettegag gnttttnaeg gneteagggt
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tctacccaaa ccctttaaga tacacattca ttngtaagaa tttaccaagc atctgccat
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       388
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aaggtttgta tttgctgtga cctctattgt cttgagagac agagtagaca gaagaaataa
                                                                       180
                                                                       240
caaatgtgaa gtcctggaat atagatgagc ttgtgatgaa agacggaaca gagtgaacgg
tcagagctgt tggaggaaga aagcaggaag ggcaataaag gtccaagtgg tagccagagc
                                                                       300
ctcggtttat tctagatgag aagggagatg gtggagtctt ttaagcagga gagaaacatg
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                                                                       388
ttctgagtta cattttttaa aaatgtaa
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       250
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       Homo sapiens
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<222>
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\langle 223 \rangle n=a,t,g or c
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ctaqtaattc cctcctccct atcccatagc caagtagcca cccctcaaat nagccattcc
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tttttgcttt catcaatggt ctctgtgaag ttggggtcgt tgttcatgat ggcggcgtcc
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tgttaagaaa aatacttttt aaagtttacc atcaagtctt ttttatattt atgtgtctgt
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                                                                     2640
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                                                                     2700
gtttttggat aaagaatact atttccaaac tcatattaca aaaacaaaat aaaataataa
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aaaaagaaag catgatattt actgttttgt tgtctgggtt tgagaaatga aatattgttt
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ccaattattt ataataaatc agtataaaat gttttatgat tgttatgtgt attatgtaat
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acgtacatgt ttatggcaat ttaacatgtg tattcttttc atttaattgt ttcagaatag
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qataattagg tattcgaatt ttgtctttaa aattcatgtg gtttctatgc aaagttcttc
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cagtcccatc ctgaacatgg agggtaccaa gattggtagg tggaccaggg aagctgggaa
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                                                                      480
geggeggaag cageagatgg etgtagteag caagatgeee tttgtgeeca caaactacta
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240
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1440

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aatgactaca ctgcagttcc agacctctac tttgaaaatg ccatgcggtt tttcaacttc
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                                                                     1740
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ataggtgtcg tcgtgggcca tgagctgact catgcttttg atgatcaagg acgggagtat
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                                                                     1920
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cagaccgagt gcatggtaga gcagtacagc aactacagcg tgaacgggga gccggtgaac
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                                                                     2100
                                                                     2160
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                                                                     2280
                                                                     2340
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       457
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tgttttagca gcagaaactg ggaattgaag tgtcacagac aaatttagca cacatctqtq
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gatacataga aaagatttta ttttaaaatg agttgtaaag cttgtgtttc tttgttgctg
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caagetatet geecaagtta atgeaaatgg acacattttt tatgteagaa aaacacacae
                                                                    240
acacacaca acacacaca acacacacga aaaacaaagg aaaaaaatgc ttgagctttt
                                                                    300
tetaaettee eettgeagte tgttgtgtga geageetgtt tatttentet aatattatgt
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                                                                    411
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      323
<211>
      462
<212> DNA
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<400> 323
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                                                                    120
                                                                    180
cttgctgttt tctgatgatt tgggggcttg ggagtccctt tgtcctcatc tgagactgaa
atqtqqqqat ccaqqatqqc cttccttcct cttacccttc ctccctcaqc ctgcaacctc
                                                                    240
tatcctqqaa cctqtcctcc ctttctcccc aactatqcat ctgttgtctg ctcctctgca
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360
aaaaaaaacc gcggccgaaa gcttattncc ctttaagtaa ggggttaatt tttagcttgg
                                                                    420
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      324
<211>
      2088
<212> DNA
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\langle 223 \rangle n=a,t,g or c
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qaqaaccaqa tttqtqtacc atttqtctqa cctgtaagat atatttttt ccatagtaat
                                                                      180
atagatgtgg aagttaatag cttttaattt taaccttgtt agtaagaatg tttttaaaaa
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tatgttggag tataaacatt tacaaacata atctgaactt ttgaatacat taattcctat
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qttaattatt aqqtatcata aattcataaa actttgtcac agataaaatt tagctataca
                                                                      360
ttttttctaa agaaaaaatc attggcattc atagaaaggc caatttctct taatagttca
                                                                      420
ataaqtqnat ttqatcttat aaaaagqcag gtqtttcttt ggaaatgaca gactccaaca
                                                                      480
tcaatttttt taaaaattct ccctttcttg tcactataaa taacttgttt agacagatat
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acagttggga ataagcctaa cacagtagaa attgctgtat ggtgtagata aaacaatcat
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                                                                      660
teccataage tattetgtat tgtagagetg ettatgtetg aaaggagtea tecettgetg
                                                                      720
tcatqtcaqa qctqcaaqaa ctaattqatt ttqqattqaa atqtqtaqtc acattttqaq
                                                                      780
acagcatttq aggggattqt ctaatacata tatttqcttt tcaqctqtaa aaaatqtgat
                                                                      840
cctacaqaaq tqqaqctqqa taatcaqata qttactqcta cccaqaqcaa tatctqtqat
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gaagacagtg ctacagagac ctgctacact tatgacagaa acaagtgcta cacagctgtg
                                                                      960
qtcccactcq tatatqqtqq tqaqaccaaa atqqtqqaaa caqccttaac cccaqatqcc
                                                                     1020
tgctatcctg actaatttaa gtcattgctg actgcatagc tctttttctt gagaggctct
                                                                     1080
ccattttgat tcagaaagtt agcatattta ttaccaatga atttgaaacc agggettttt
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                                                                     1200
tgttatcttt attaggtaat cacttcttaa ttatatgttc atactaagta tcaaaatctt
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ccaattatca tqctcacctq aaaqaggtat gctctcttag gaatacagtt tctagcatta
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                                                                     1560
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ttaaatagat tcataagcat atacctgtgt gaaataaatt gttggaaaaa agtttcctta
                                                                     1860
tgttaacttt ctttacgtaa gttaacttgt tattgatgaa tggtttgtaa gtatgatgta
                                                                     1920
atgaaqcatt aatcacagaa ctaatacatg tacatatttg aggtggcttt gccattttat
                                                                     1980
acccataatt aaataaaagg gcaaaatccc ccctgataaa taccatgttt atcatggcac
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<213> Homo sapiens

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ctttcataca cattgtctca attcctgtga ggtcagaatt atctctgcat ttgaaacttg
                                                                      120
aggaaacatg ctcagagtgc aagaagcttc cttgcctgag atcacctaga aaggaaccct
                                                                      180
cagageegge aactgaatet tggteeetgt gatgteaage ceattgetet neeactneag
                                                                      240
aacatggcct ctagattaat gccaccgatt caggaacacc tccgacagtt ttgaaatacc
                                                                      300
cccatgttgc cttgtttgtt ttttccttct gggcttcttc tattacagtc tctttcattg
                                                                      360
ggaaggctct gttagggcca agggccagga ggctggatta ctggacacgg gagtcccaat
                                                                      420
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       Homo sapiens
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                                                                      180
                                                                      240
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caagggaaat cttccgaagg cactttcgac agctgtgcta ccaagagacc cctggaccaa
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                                                                      360
caaaggagca gattttggat ctgctggtgc tggagcagtt tctatccatt ctgcccaagg
                                                                      420
agctccaggg ctgggtgagg gaacactgtc cagagagtgg agaagaggct gtgattttgc
                                                                      480
tggaggatet ggagagagag etegatgaae eacaaeatga gatggtggee eacagaeaca
                                                                      540
gacaagaagt cctctgtaaa gagatggtgc ctctagcaga gcagacacca ctgacccttc
                                                                      600
                                                                      660
agtcccagcc taaggagcca cagctcacat gtgactctgc tcagaagtgc cattctattg
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gagagacaga tgaagtaacc aagactgagg acagagagtt ggtgctaagg aaagactgtc
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ctaagatagt ggaaccacat gggaaaatgt ttaatgagca gacctgggag gtatcacagc
aggatccctc acatggagaa gttggtgaac ataaggatag gatagagagg cagtggggaa
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acctcttagg agaggggcaa cacaaatgtg atgaatgtgg gaagagcttt actcagagct
                                                                      900
                                                                      960
caggtctcat tcgacatcaa agaattcata ctggagaaag accttatgaa tgtaatgaat
gtgggaaagc cttcagtcga agttctggtc tttttaatca ccgaggaatc cacaatatac
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tccacacagt ggctgagctg gtctagggct tggctatgag caagttttcc agatcaccac
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ccaagttgtg tggggcaggt tgagactaga aaatgcctct ttcttccttt ctccatgaaa
                                                                     1380
                                                                     1440
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ttgaagetae tgttttetet tttgtteaet ttaeetettt ettaetetta etagetgtgt
                                                                     1500
                                                                     1560
ccctcttatt tataatttat ttatttttt gagatggctg ctaaaccctt ctaataatat
aataaatggc actg
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       480
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<213> Homo sapiens
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cgtgcttcat ccctttattg aagaacagaa aattatgact actctacaag gtggataata
                                                                      180
ttttggtacc tgtggctggc cacagccctg ttcctcaaag ctgaattgat agatttctct
                                                                      240
ttgacttcca agacctagca gttataaggc accttgaaat aaattgtttg tgcctggaaa
                                                                      300
tgcagggagg gcaatagctt tgtaaattgg nttacatttt tctccttgaa tttttctagg
                                                                      360
gtoctagtgc ttccgaatca tttaatggca ttgtcggata tccttttaca tttcaattgc
                                                                      420
                                                                       480
aatccatgaa attacattta gaagattett agtacttaac ggtagtette ccatgaattt
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                                                                       120
agtggacgtt aattgtcagc caccagactg tcccggcacc tacagagaat gtttcacagt
                                                                      180
tetggeattt aaateetttg atagtggatt gtgetgetgt tageettagt tteagtgett
                                                                       240
tacaagtete gettattate teattggtat ttaggtatae aaaacagttg attatteace
                                                                       300
acqccaatat ctqqqtctct qtatctcatq tagaacataa gaaaatggga actaataggg
                                                                      360
aactttattt atagcatgaa aataaa
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       427
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      Homo sapiens
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<222>
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<223>
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                                                                      120
aggggegeca egtgegaget gtggaattgg geecegtgge agageeceat eeettggggn
                                                                      180
tegtngggga tgegeecaag eeceegaggg agaggeetgg ggaeaceaac aaatetaage
                                                                       240
cctccctagc tgcttggtaa ctgtgtcatg aagctgccgg acagacacac gtggcatctc
                                                                       300
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cctgggcagg agagcaggcc tgcagcatgg gtcctgttcc cgtgtgccgt gggtggcagt
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ggctgcacct ggcactaggg ctgctctgtg gatgtgggtn acaacggcag gaggggatgc
                                                                        427
tggcctt
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       327
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<213> Homo sapiens
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cagacagacc cccagaccct caagccatct ggttttcatg aggatgaccc cttcttctat
                                                                        180
                                                                        240
qatqaacaca ccctccggaa acgggggctg ttggtcgcag ctgtgctgtt catcacaggc
atcatcatcc tcaccagtgg caagtgcagg cagctgtccc ggttatgccg gaatcattgc
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                                                                        327
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       331
<211>
       476
<212>
       DNA
<213>
       Homo sapiens
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caaaattaaa caagtgggta attccagaat tgattggcca taccattgtc actgtattac
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tgctcatgtc attgcactgg ttcatcttcc ttctcaactt acctgttgcc acttggaata
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tatategata cattatggtg cegagtggta acatgggagt gtttgateca acagaaatac
acaatcgagg gcagctgaag tcacacatga aagaagccat gatcaagctt ggtttccact
                                                                        360
                                                                        420
tgctctgctt cttcatgtat ctttatagta tgatcttagc tttgataaat gactgaagct
ggagaagccg tggttgaagt cagcctacac tacagtgcac agttgaggag ccagaa
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       332
<211>
       352
<212>
       DNA
       Homo sapiens
<213>
<220>
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<222>
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\langle 223 \rangle n=a,t,g or c
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                                                                         60
agagtgagac tccgtctcaa aaaaaaaaaa aaaaccaaac ccgtatgttc ttttaattta
                                                                        120
tactatgtat acatttttct tatattagct tagtagttct tagaaaagaa aacctcatta
                                                                        180
                                                                        240
atttgaatct tcttatatgc aatctgngat tattcagaca gggtgaagct gaaatttaca
                                                                        300
tttaaattat aaattttaaa atgtttgcag tccaattgaa tcctataagg taagagtcta
                                                                        352
gaaaaaaqtt attaaaaaat aaacatttta agtgctttaa aacacacact tg
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<211> 456
<212> DNA
<213> Homo sapiens
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                                                                      120
ggaacaagga aacagaacca cagaaataaa tacattggtt aacatcagat tagttcaggt
                                                                      180
tacttttttg taaaagttaa agtagagggg acttctgtat tatgctaact caagtagact
                                                                      240
ggaatctcct gtgttctttt tttttttaaa ttggttttaa tttttttaa ttggatctat
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cttcttcctt aacatttcag ttggagtatg tagcatttag caccactggc tcaatgcgct
                                                                      360
cacctaggtg agagtgtgac caaatcttaa agcattagtg ctattatcag ttaccaccat
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       334
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       429
<212> DNA
<213> Homo sapiens
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                                                                      120
                                                                      180
agctacgcgg ggaggcggcc ccattgcaaa gtgcagtttc tccgcggagg tggcggtggg
tcagtggcag agggccatgg tttccatgtt aaggaagcgg acgtgcatct tggtctcaat
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gtegatecee tgecagatet teaggaagte etegaaggtg ateceetegt acacetgate
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aggeteeate ttgeeceatg cacaegetgg cegeeteeat catggeeceg teggegatgg
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agegagegga etectteteg atgtgagggt tteeegaeag eageteeteg aceaetttae
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atttcgagg
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      552
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<213> Homo sapiens
<220>
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<222> (1)...(552)
<223> n=a,t,g or c
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aactotocoo aaaataaata totootoooo gotttggggga gttggggggg totgtatott
                                                                      120
agggccagcc ctcctagtgg gccagcnccc tagtgttaaa aataggtccc taacccccca
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gggtgacccc cgtggtggaa tttcaggaca tctgagtgag tggggcctag tgtcaagtct
                                                                      240
                                                                      300
geoceceaag teageetgge eeceaggnte etaaggaagg agggeaeece eeteeeetgt
gcaaatgctg cagttcctta gtcagtgtca gctgttttgt gtgagccagc gtgaggctcc
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ctttctgttc tggagccaga ggagnggcaa ccagacanct tggaaggttc ccctgaaccc
                                                                      420
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                                                                     3000
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                                                                     3780
                                                                     3840
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attaaatata atategacae agtgetttee gtggeactge atacaatetg aggeeteete
                                                                     3900
                                                                     3960
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<213>
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                                                                       120
tgtacccagt actctaccta ctacagacta tttaacttac ccaacaaaat caaaagaggt
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       195
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       Homo sapiens
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tacaaagagt tcagcaacat tcactggcat tataatcaga gcaagatcaa nttataantg
                                                                       120
taatcaaaga aaatatgata gttgaaactg taataacata catacattat aaagactgca
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195
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      360
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<222> (1)...(358)
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tttagaagca aatacattca tagctgtgta atccccagga agaatctaaa tctgacatca
                                                                      180
ggtcattcag tccctgccag acagacaaca gcatcaaatg gtcaacagct aatccagctc
                                                                      240
tgcagctaaa gggcagtgtc gggcagcagt ggggtatagc atattaccaa agatgagacc
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aqcaaaaaca acaatgtgta taaagcttta anttaacatg atcatataga gcgctcag
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       361
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      311
<212>
       DNA
<213> Homo sapiens
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                                                                      120
cttaqqcaac aaqaaatqct qaqtaqtatt attacatatt caaaccagac ttaaacttca
                                                                      180
gaaacagaag gccagatgag tgacctgtat cacaggatat gacaacacat cacctatctc
                                                                      240
caaacaaqaa aaaqcatqat tattaaqttt atctacacca qcttatttat tcaaatttgc
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tcttcttatt a
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<213> Homo sapiens
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                                                                      120
acataaattt caaaagctgg ttatattatg gaataccata tatactggcc tttgccagtt
                                                                      180
                                                                      240
tgggatttct gcaatagcaa taagcctcgt ttctgtttcc aattataaca acaaaaagat
gagttactaa tgaacattcc acttacagaa gtctaggcta tgttgataaa ttgaaaactt
                                                                      300
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atctagacta ctctg
<210> 363
<211> 267
<212> DNA
<213> Homo sapiens
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<221> misc_feature
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aaaacaaaca tgtaaacaag gtatcagaac tttggttcac tgaaacatct cacacctaaa
                                                                       120
acacetqnqq tacaaaggca cettgetagg egetagacag etaactetge tgeagecact
                                                                       180
ttgatcctag ccttggggcc agggatggca caggctgaat ggaagggctg ggacttcagt
                                                                       240
                                                                       267
cacacaggag tcgccctagt atggtct
<210> 364
<211> 247
<212> DNA
<213> Homo sapiens
<220>
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<222> (1)...(247)
\langle 223 \rangle n=a,t,g or c
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ttcagaaqca ggaaatttta gttgttgcca gagaggtgtg tcaaggacac agtgaaagga
                                                                       120
gccatgcgga catggggtgg aaggctttnt ccaacactgt tacaacactt ttgtaaatga
                                                                       180
qcaaaacatc tttaaaaatc cttataaatt ctttataata tgttacacat ttagagacaa
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tatttac
                                                                       247
<210> 365
<211> 372
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<222> (1)...(372)
<223> n=a,t,g or c
<400> 365
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atgagaaggc aggtgtccaa cagcttcagc ttcacccagt gccccccaga caaataatga
                                                                       180
                                                                       240
caagtccagg gtcttctgat gtgtcaggcc agcactcccc ttgctgatgg gaaaaccggg
                                                                       300
geteggeeag ceceaetgea teceeteaca tgatgataeg aggetetnge aetgaetege
caatagactt gtggggcagc angctggctc cgttgaggta ggagctcatc attaactatt
                                                                       360
gacgtcctnc ac
                                                                       372
<210> 366
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                                                                       120
ctcccagccc ccaggctgnc ttttccctcc aactgtcagc tgcttagctg ctcatctggg
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gattggagct ggagcatctg tcaaggttgt ctccttgaca aacagcttcc tctttggaaa
                                                                       240
tggcttcact caggtcctgc aggtcatcga gcaggacaga gagggacccg gggaaggaag
                                                                       300
acagcagatg agcaccagac aagggaaggt gctcgtggtt acagagggaa acagggttgg
                                                                       360
gcacagggaa atgagggaat ggggagagag ggaggctctt tgggtccaag ctggggcatc
                                                                       420
ncttaaaaga ggtttaaggg tntcgaagga ccncagagaa caacattett entgegagat
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ttttaagagg gagttttctn a
                                                                       501
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       231
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       DNA
<213> Homo sapiens
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                                                                       120
taaatctqqt atattaaatt qtqctgtaaa tagatttqta tattttcttt tttqagtact
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                                                                       231
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       292
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                                                                       120
cttcagttga catgagtttc atcatatata gaaaaagtat caccttcaac ttaaaaaaag
                                                                       180
                                                                       240
taaaggttaa aaggtggcac acttttaaaa tacttggtgg ccaaggaaag gtatatagta
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<211>
       375
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<213>
       Homo sapiens
<220>
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<222> (1)...(375)
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                                                                       120
gtggagactg aggcccagag aggccagtga cctgcttgag gccacacagc aagtgagcag
                                                                       180
cagagetggg naccagagge tggggtggge cecaceteca geceetgget etntecaetg
                                                                       240
actgtgctgt cccccaggag gaccccagcc tntgtccaga gtntcagcca canccaagcc
                                                                       300
aggnteceae ecettgeagt gggtgeegee tgggaageee cagaagaeag gttteeeaee
                                                                       360
cccattcggg aagac
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<220>
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<222>
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\langle 223 \rangle n=a,t,g or c
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cagaaggaag gagacacctc atgacgaccc cagtatgcag tctgggacat gtnttttcag
                                                                       120
                                                                       180
anctgattct gtgaatattt cattttttat gggtagggtc acatacatat atattttttt
ccttcctttt gtcatttaac atcctatagc ctaaatgttc ttgaataata ctgacaattc
                                                                       240
                                                                       300
tgtctaagta tcatttttaa taggtttgta atatcattgt gggctggccg tgggtggctc
atgcctgtaa tcccagcact ttgggnaggc caaggtgggg tgggntcatc tgagggtcag
                                                                       360
ggcgttcaag accacggctg ggccaacatg ggngaaaccc tgtncttcta ggnaaaaata
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ccacaaaaat tnggccgg
                                                                       438
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       391
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<213>
       Homo sapiens
<220>
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       misc feature
<222>
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<223>
       n=a,t,g or c
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                                                                       120
                                                                       180
geegaggaeg canceceagg eceeteteag gtgggeatgg eagteeegge ageaeeeeet
ctgagcagcc tgctgtgggg aagaagccgg gccggaagcc tcagtcgtgg tgccagccca
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getcatgete ecegeceega ggeceecage etntgggaag eceetgeetn taagggacag
                                                                       300
ctcgtgaaga cacaggaaca gtggttgggg gtgagggtct agggaattgg ggcagagggt
                                                                       360
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 $\langle 223 \rangle$ n=a,t,g or c

ngcttnagca canacctgac ttccctggga g

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      (1)...(404)
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                                                                       120
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                                                                       180
atacaattaa agatgggtca gaaaaagaat tctacaagaa gtaaccctaa atgaacccta
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                                                                       300
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                                                                       360
tacccgacac ccctctctgt gggagggccn ctttctagtn aatg
                                                                       404
<210> 373
<211>
       262
<212> DNA
<213> Homo sapiens
<400> 373
ttttaagcaa tgaaatattt tatttgctga aataggtata acacttaaat aaaaattaaa
                                                                        60
caaatgttta atatctcctt ccatgaaaca gcagcagcaa gagatagcaa gtgttcggaa
                                                                       120
                                                                       180
gtotottoaa tooatgttat totgatgact otttgaagaa agaacttgaa cotootgcac
agggggattt ccttcactca tagattcccc taacttcatc tcctcttttc cttgggctat
                                                                       240
tagtcagtca atatgcttgt ga
                                                                       262
<210> 374
<211> 478
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222>
       (1)...(478)
\langle 223 \rangle n=a,t,q or c
                                                                        60
gegacegaca egtectecat gteegegeee ageeggnete gegeegeetg cageteettg
gacageegtg eeegegtete eteegeeace ggggteagtt gtteeteeag tteegatttg
                                                                       120
                                                                       180
taggeettea acteetteat ggtetegtee ateagegeee teagtteetg ggtgaeetgg
                                                                       240
gagetegage ageteeteet geacetgete agacagtgte tgeacecage geaggtaate
ccaaaaqcga cccagtgcca gttcccagcg ctggccgctc tgccactcgg tctgctggcg
                                                                       300
cagtegngge teeggetetg tetecacege ttgetecace ttggeetgge atcetgeeag
                                                                       360
qaatqtqacc aqcaacqcaq cccacaqaac cttcatcttc ctgcctgtga ttggccagtc
                                                                       420
ggctcctggg gaaggacgtc cttcaacctc gtgccgaatt cttggcctcg aaggcaaa
                                                                       478
```

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<210> 375
<211> 429
<212> DNA
<213> Homo sapiens
<400> 375
qctttcatat aaaaatqtac tqtaqtaatc agtaagaaaa agaaacaaca ttggctaagt
                                                                        60
cacqaataqq catttcacca tatqtacatg ataaatggcc aatcaaaata aggaatgggg
                                                                       120
ctcattctqc tqqaaattaa atacattcaa acaagaacag agatccatta gcaaaatgtt
                                                                       180
taaaaataat atcacagggt taccaggggt atgacaaaaa tggacacttc catacacact
                                                                       240
aggtqaatat attggtgaaa atagttcaga taaacataca accatgtatg taaaagtatt
                                                                       300
tatcatcaat gcattatttg tagtagcaaa aacaacaagc agccttgtga aaccagttta
                                                                       360
atqtcctcaq caqqqaatta ataatattat tgtatattca tgaaattgac accatgtggc
                                                                       420
cacacaaat
                                                                       429
<210> 376
<211> 503
<212> DNA
<213> Homo sapiens
<400> 376
aaagaattac cataagtttt atttttgctt agttttatta aaaaaataaa tatgtcataa
                                                                        60
agetttettt tteettaggg agaaaaaaag gaacaagtet cataaaccca aataagcaat
                                                                       120
qqtaaqqtqt cttaacttqa aaaaqattaq qaqtcactqq tttacaagtt ataattgaat
                                                                       180
gaaagaactg taacagccac agttggccat ttcatgccaa tggagcaaac aacaggatta
                                                                       240
actagggcaa aataaataag tgtgtggaag ccctgataag tgcttaataa acagactgat
                                                                       300
tcactgagac atcagtacag atacatcttg cttaaacaac acagaagttc ctgaaaagtt
                                                                       360
ttqtqtaaat gatataacca caaacattac caggagagct tgggtaactg aaagaattcc
                                                                       420
atggcgaatt cetttggtga acaactactt teacttttgg taaatccagg tatttgettt
                                                                       480
                                                                       503
ttataaggag tttacctagt tgc
<210> 377
<211> 467
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(467)
\langle 223 \rangle n=a,t,g or c
^{<400>} 377 ctaaaattat tttattttt ataattttct aacacatggt gttagaaaat gaattttggc
                                                                        60
acceptgatta agaatttett tteaagttta acctttacat taaaaacagt agetacaata
                                                                       120
                                                                       180
aggatatttc aaccttactt agagaagtga taaancatca agtcaacaag tatttttgtt
ggagaatttt tttataagcg ggatagaggg aagttaacat agacactcag aagaataaaa
                                                                       240
tggaaattat gccaggaaga taaaaaagca aataaccctc cccccaaaaa aagaataagg
                                                                       300
agcgagacaa agggcaaaac ggaagaagca aggctcaaca actttgtttt cctgatataa
                                                                       360
aattcaagta cttaaaaagt tttttaaaaaa ataattaaat gcactactca tctcaatgaa
                                                                       420
atttttcgtt ttccnatttt ccagaacttt ctaaaaaagg aaaccag
                                                                       467
```

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<210> 378
<211> 482
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(482)
\langle 223 \rangle n=a,t,g or c
^{<400>} ^{378} caatgtgaaa ataaacattt attataaaaa ttagttttga cattttaaag tgaatgcaga
                                                                          60
caaggtgttt tccagttcaa aaggtccatt gtaagctaga qaagtaaatt ccaaggctgg
                                                                         120
caataactga ctcatattct tcacaaqtgg cctagacaat aaqqaaccat tcacctcaaa
                                                                         180
ttcacagage catgaatcac ctctgettcc ccatgacett ttccatatcc ttcctactct
                                                                         240
gtcttccaac catgacacag aactgaaaca tactttaaaa atctcatcct tqqctaqqca
                                                                         300
cggtggctca catctggtaa tcccatcact ttgggagggc caaggcaggc ggatcaaqaa
                                                                         360
ggtcaggaag tttgagacca gcccgaccaa catggtggaa ccctggtctc cactaaaanc
                                                                         420
ccaaaaatta ggccaggcat ggtggcacgc acccgcaatc ccagctactc aggngactgn
                                                                         480
                                                                         482
gg
<210> 379
<211> 252
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(252)
\langle 223 \rangle n=a,t,g or c
<400> 379 tttttttgat gctgaaagaa gactttaatg tgcacaaaga aacctcacat tagtgacagg
                                                                          60
gagacanagg aaggaggtg gggaggactg aggcccaggg aaaccagagc tatggagaca
                                                                         120
gaggcettag ggaagaggag atggetggga ggacengetg aggggtggge gaggeagaga
                                                                         180
ggcccatccc ttgctgagag gagagggggt cggggcggtg gcagaggcag gctcttgcag
                                                                         240
agaggagagg gg
                                                                         252
<210> 380
<211> 296
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(296)
\langle 223 \rangle n=a,t,g or c
<400> 380
```

```
cngcagttgg gggtggggtg ttctggttta atcatattca gagtttgagc ttgaaataac
                                                                        60
caactcaaga cccacaggag actatgtcac cagataaacc cagtgctaga atccaatgtc
                                                                       120
                                                                       180
cagcatette aaccaeteag gagtgtttge tgagagaeca ggtggtgett aeceaeceaa
caagcacttt ccatctttgg gtttgcccaa gatgtttacc ataaatgaaa ggggtgggga
                                                                       240
aaqqattata qttqacacca acataaatta aatatccaat tccagcatat qtqaca
                                                                        296
<210> 381
<211> 165
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(165)
<223> n=a,t,g or c
<400> 381 ctctttgagt aactttattt tggaggagtt ccataagcat taggaacata cataaaatga
                                                                         60
cacaccacty ttyacaatya aaaaaaaaac aycatttyat attttccayc tttttaagtt
                                                                        120
                                                                        165
aaaaaatgat tcagttaaaa caaaacaaaa gtttagatat tttag
<210> 382
<211>
       319
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(319)
\langle 223 \rangle n=a,t,q or c
^{<\!400>} 382 ctccactcca ttgttttatt atgtacaaac gctacagaac gnnggggaca gacacgcgtg
                                                                         60
gggtaagaag ggcctggtgg gaggagttca cagagcagac ggtgcactgg gaccagnaga
                                                                        120
gcagaacaca qqccataact atagggcagg tngggcagga acggggttaa aaacgagatc
                                                                        180
caagccagcc agatcgcagg aggtgcgggg gcgtcgtccc cttctnttct ccccccaagg
                                                                        240
tcacagtgca tgcaataaaa tatatatata ggagctagat ccgtcctctg caagggctct
                                                                        300
                                                                        319
gaagggtcca aaactccct
<210> 383
<211>
       250
<212> DNA
<213> Homo sapiens
^{<400>} 383 cttcattac cctttattac aagtcacgct cttatagaag tatatgtgga cttacgtgaa
                                                                         60
aaaatcaaat gtatccaaqa ataaaaaaca cagcacataa agtagtatat gcattccagt
                                                                        120
gttcgcgcca gagacggcgg gcgcccaagt aaaagctctt ctaaaacggc ctgactgggg
                                                                        180
caggegggtg egaacggtte egggeeteag geacagtgtg ggggeegeet geeteeteeg
                                                                        240
                                                                        250
cggcccggcg
```

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<210> 384
<211> 170
<212> DNA
<213> Homo sapiens
<400> 384 ttttggtaca aaaggtgtct ttattgaggt ctgggttaaa attaggcact tggccacgag
                                                                          60
cagcagctta aatatgaggc aagcagtcag gggttagcca tgcctggggt gggttgqggt
                                                                         120
catgaggcta caggcacaga ctgtccccag gtggacagaa gtttggagca
                                                                         170
<210> 385
<211>
       281
<212> DNA
<213> Homo sapiens
^{<\!400>} 385 tttttttcct caaaagtttt tattcttttt catctttta aactggcaca ctgcctggta
                                                                          60
tacaccgcca gtaggcattc agaaaagttt ctttttttta aatacacaat ttataatact
                                                                         120
gggaagattt catttcagtg tttcccaaaa cattattcct ggaaagggtg tactctccca
                                                                         180
tgactetgga taatagaagt titgttetga tittttaagt caceteagae agacaetgga
                                                                         240
acacgttaga tctaacactt aagtgctttg aaagggcagt a
                                                                         281
<210> 386
<211> 139
<212> DNA
<213> Homo sapiens
^{<\!400>} 386 aatgcagcca aaagtgatat ttgcttttct cagaaccata atcgatacaa gatgcagtga
                                                                          60
ccaattcatt ccttaaaaca cctgggctcc ttaagcggct agaagacaca agttacatcc
                                                                         120
                                                                         139
agcccatcag ggagccaga
<210> 387
<211>
       285
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(285)
\langle 223 \rangle n=a,t,g or c
^{<\!400>} 387 tccagcccc cgcgtgcatg cggcagacat ttatttgcac ttgtcacata gtagcctgtg
                                                                          60
aggtagecca ggatgaagat gatecagaag agggecaege geecageaee tteatggega
                                                                         120
                                                                         180
tgcccagctt gcccgtgcac agcctctggg agatcctgcg gcanntgagg cctcttctgt
getggacaca gecectagge tgaacteegt ceetgetgee gteeteecac etactatagt
                                                                         240
gggacgtggc tctcctgggg gctgcatgct ntgggggctn cagcg
                                                                         285
<210> 388
<211> 378
```

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<212> DNA
<213>
       Homo sapiens
<220>
<221>
       misc feature
<222>
      (1)...(378)
\langle 223 \rangle n=a,t,g or c
<400> 388
ttggggtcgg agtggtttta ttgggcagca ggggctcang gccggtgggg cgtcaccgat
                                                                         60
acaagtagtc agcctggatn ttggcggcga tctcggcctc ccacttgtcc ccgttnttga
                                                                        120
gcaacttete ettgttgtae ageageteet catgggtete egtggagaae teaaagttgg
                                                                        180
ggccctcgac gatggcatcc acgggacagg cctcctgggg agaagccgca gtagatgcac
                                                                        240
ttgggtcatg tcgatgtcat agcgggtggt ccnggcggct gccatcagct ctttggctca
                                                                        300
gccttcgatg ggtgatggcc tggggcnggg caaatggcct tcgcagaatt ttccaggcaa
                                                                        360
ttcaacgttt ccttcccc
                                                                        378
<210> 389
<211>
       267
<212>
       DNA
<213>
       Homo sapiens
<220>
<221> misc_feature
<222> (1)...(267)
\langle 223 \rangle n=a,t,g or c
^{<400>} 389 ttcanctcct tttattgaca gaaatagaaa tttgtgctgc agaggcagta gtacctcaga
                                                                         60
gcatgagaag gtagtcaatg gggctgacat gacaagccac aatgctggcc aggggtccta
                                                                        120
ccatagtggg agaaccaaaa ccacaaaaat agcaggaggt agcaaacatc cccaacaccc
                                                                        180
agtgtaagca tttccatttg cagagagctt ggccatgcat ctttaaaaaac ggggtcccct
                                                                        240
tcacagctgg gcagggtatc atgtcag
                                                                        267
<210> 390
<211>
       386
<212>
       DNA
<213>
       Homo sapiens
<220>
<221>
       misc feature
<222>
       (1)...(386)
<223>
       n=a,t,g or c
aaattatata ttacatgttt attaagagca caacttttat gtaaaattta catttaatga
                                                                         60
aaaaaatcaa aaatatttac aaaatcttgg aagacagatg tgcattgttc taattacaat
                                                                        120
ccaaagtagt aaataacaat cctttaaaac tcacatttat tagagttgtg tttacaaatt
                                                                        180
cttggttaaa gaggcagcta caaagtttat cactatatat aagcaagaac cagcttgcta
                                                                        240
gggtacattt cccattgaaa atctactggg tctcttttac accattaggg ggatttttaa
                                                                        300
```

```
atggggnaaa aaaaatcaat ataaactcat atgggcttca aaattggtaa cctgtacccc
                                                                        360
                                                                        386
natacttggg gnatggaggg ctgtgg
<210> 391
<211> 220
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(220)
\langle 223 \rangle n=a,t,g or c
<400> 391 atacaatang ntttattgag gatgtgtcaa tacagttaac atggttgctt gtcttttcaa
                                                                         60
aaagaagttc cattttcttt gattcccaag tgcatttttc ctgaatcttc tgtgatacag
                                                                        120
ggcacatgat aggtatgtag agagctaagc ttcctatacc aagttagaag tgaaatgact
                                                                        180
agtgggaaaa catttaaact ttaatcttaa aaaaaaaata
                                                                        220
<210> 392
<211> 357
<212> DNA
<213> Homo sapiens
^{<400>} 392 ttttttttt ttacaaattc ttttttatta gtcaaaatca caatcacctt gattaaaaag
                                                                         60
gatgggacac tecacectea geagaaaatg atacagttta tagaaaacet eeeegeeeet
                                                                        120
cccacaccc aattaaaaac tacaaaaaaa tctcccctcc ttccctacga tgtcatggta
                                                                        180
                                                                        240
qtctgactcc tccagtggca ctgcagctct ggagtggcca gctcaccaca gcaccctcca
cttcaccttg gggagaggag ggatgctggt ggttaaggag gttaaaacca ttagttccag
                                                                        300
                                                                        357
taatqccaqt tcccaaacat qcacttcctt cctttccccc aaggtctggg accaagg
<210> 393
<211> 332
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(332)
\langle 223 \rangle n=a,t,g or c
<400> 393
ttttttttt ttctggagca taatgtttta ttgttgagcc tcctaattta caacaatgtc
                                                                         60
ttttgaaatt tgcttataaa attttgtcac agggagcaac aatgttaacc taattattat
                                                                        120
tcacttattt tcatttttta aaataaatga ctataaataa ctgtctcttc agttaggatc
                                                                         180
agggatatca taaaaacatc actagcgaga catattttag tattaatact gatgcaaaaa
                                                                         240
                                                                         300
ntgaaatagn gaccnaatat ttatatatat agcactatat atatttttat atattgnata
                                                                         332
ctcatatcaa aacttgccat ttctcttaag ta
```

<210> 394

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<211> 436
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(436)
\langle 223 \rangle n=a,t,g or c
<400> 394
ttttttttt tttttttt tttttgttac cagaggaagc agcttttatt gatgggttat
                                                                         60
ctccagaaac cagaaagact atatgtactc actttcagtt acccccgtgc ctccagantc
                                                                        120
qcatqttqct ccacctgggg gcggatataa attacctcta gattqtccaa agcccagtct
                                                                       180
ttcccttccc tgtgcagcct tagtaaacta agtagcagta ctgtttggtg tgtgtttgtt
                                                                        240
tetteeccag caatgeetae tgeagetaet tagtaacaae tagaggtgga gggttteegg
                                                                        300
ggaagcagtt aggatgagtt aagtgtgatg cacagggaaa atagtatcgt aggcctatca
                                                                        360
aagggnccct ctgccctgcc tcagtgggct tgatttcttc attgggttgc atttgctctt
                                                                        420
                                                                        436
tgtgttggga tgacgc
<210> 395
<211> 364
<212> DNA
<213> Homo sapiens
<400> 395
tttttttttg ctgttatgat tagatattta ttgagcacca ggagagagtc agaacattag
                                                                         60
acttatagtg gaggagcaga actgaaccct ggcctgtgaa ataacaattt caattaaaag
                                                                        120
ctgtctggcc ctgaagaaag agaaatgatc ctggatatag ctggtcctct gagctggcag
                                                                        180
agctgagcct ccctcgggtc ttctggtggg caagatgcca aagttgaata gtgtctgtag
                                                                        240
ggcatgatga ccaagtccta gtgctatggg catcttccct ctggtattta ggagaggagt
                                                                        300
                                                                        360
accagaagee eeeggeagag gataetagga agggeeeaga geeaaateea geagetggge
                                                                        364
ttac
<210> 396
<211>
       416
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(416)
\langle 223 \rangle n=a,t,q or c
<400> 396 ancenttann enttccaagt cattagettt atttttactg aattcagcat gggatgacaa
                                                                         60
aaatgcatta tatcactacc atccattatt acatgtagac atttatcctt gtattcttta
                                                                        120
tatgtccatt ttctacgtta aatctgttaa ccaatactaa ttnaaattac atgatttcct
                                                                        180
actaaaaata tgcagttcat ataagcaagg gcaaataaat cctccttaaa acattttatt
                                                                        240
                                                                        300
cctttataat tgaggaactt aacagtctta atgggctagg ttcttaaaaa atgtttatag
ggnttaaggt ttatttaagg ggaggccggn caaacaaaac atattgtaaa actaggtatt
                                                                        360
```

```
ttcccggagg ccatttccct tctctccct tcttcccggc aaacnggggg ttttta
                                                                       416
<210>
       397
<211> 320
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(320)
<223> n=a,t,g or c
<400> 397
agttntgggg tcttgtcang ttgcccaggc tgatctcaaa ttcttgggct caagcaatcc
                                                                         60
tectgeettg getteecaaa gtgtteagat tacaagtgtg agecaetgae eeagaecaag
                                                                        120
aaattttaac cctaactaaa tacccaaaaa aagtgtatat atgttccaca aaggacatgg
                                                                        180
gtaagaatgt ttatagcagc agtatttgta atagccagaa actggaaaca aqccaaacat
                                                                        240
ctatctacag cagaagagac tattgtttat ttatacaata aactacaata tagcaataaa
                                                                        300
atgaatgagc tacaacaaca
                                                                        320
<210> 398
<211>
       284
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(284)
<223> n=a,t,g or c
<400> 398
tggaaaaaan nacaacttta ttttcagtca tttctatttc cttggttatg aacaaaggta
                                                                        60
gcaaagtgca gttgtatcag cagtgccaat agaaattaca gagtttttca tatcccttta
                                                                       120
cagtttgcca caggtatctt aaaatattgt ttacactcat ctctcttcag tttaccattg
                                                                       180
tttaataggc ctaccctcga tctttttatt caatatqtta ataaaqaaac ctatacacat
                                                                       240
agtatcacgt tatacatttt aaaantnttt tgacaactgt atat
                                                                       284
<210> 399
<211> 316
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(316)
\langle 223 \rangle n=a,t,g or c
<400> 399
agacagcttt tgagtttatt tggcttctgg cttcactgga ncccgaggct aagactccaa
                                                                         60
ccctggctgg ggcagcagga aggcatccag agagccctgg ccccagatga cccccagggc
                                                                       120
aggaggtcca tgctctaagc cctagggcag gggccgcagt agcaggantt ggtcaaaagt
                                                                       180
```

```
gctggtgaca gctgaggccg gccccttttc cctgcacctc ccctcctccc tgnatcaccc
                                                                       240
cagcaggcaa ttccctgaga caggntctgg gtcctcccaa ccagttgggg tacagttttg
                                                                       300
gggccccant agggca
                                                                       316
<210> 400
<211>
       316
<212> DNA
<213> Homo sapiens
<400>
       400
ctggtttaaa atatttattg attaaaaaaa attaaaaatt ttttatacaa aggtgatgag
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aaaaaatctc atgcaaactc cgggcataca ataaaaataa ctcaaatatt aatatgatga
                                                                       120
ttttgtacaa aataattett ttgaagtagg aceggtggca aceaacaegg etecetgete
                                                                       180
caggccggga cgcccctctg ggaggaacgc gcggccaccc ttggaaacct gtaagtgatc
                                                                       240
cacggtccag gtgtggaatg ctcacagttg tcactatgat gaatgatgaa aaccctattg
                                                                       300
ctgctactca gaaacg
                                                                       316
<210>
       401
<211>
       349
<212> DNA
<213> Homo sapiens
<400> 401 tttcaggtaa caaagtccag tctgttttat ttttaaccca aatattccaa atatacagaa
                                                                        60
aattaccagt acaaagttaa acacattcag atttatttac acaatgctaa agaaatttga
                                                                       120
gttttatttc cattttgtgg aattttatca tggggtctgg ctttaatgtg taactgacgt
                                                                       180
gggtcactga aactcgatta tcccacctca catgcaattt tctgtcctaa gggaatagaa
                                                                       240
                                                                       300
aacttgggtt tttagggcac atgcagtaat gatcttaata ctgctttaca ctttcgtggg
aaggcagctg tcccacagcc tggggaagga ccacatgctc agaaagggg
                                                                       349
<210>
       402
       413
<211>
<212> DNA
<213> Homo sapiens
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gtcagagtga agtatatgca aaatgaccat ttggtttttt tccattttat taatagcata
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tggttgcaga tggtgtaaat ggtaaacgtg atatcatgag acattcctga tatctcacac
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caacacatta tttaacgagc aggttaaggt gaaactgcca gtatgctgtt agtcaagagt
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cctcagtagg agaacttgag tgaaacgtac acccaggeta cagatttaaa att
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gagaagggag tetetgggge atgageaagg gageegattt ettgtetggg tteatgaage
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tagagagggc tgcggcagag gctttgaggc ctgggtatag cactggcact taggtgggat
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tatacaaata ctgaqtgact acagtacatg ccgaqgtaag ataagtacat tctgggagaa
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tatcactgac gctcaaacca tttttatttc caatatgtat ttcaatacat gtttgtttcc
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gtaaaatgtt ttcacagtac tttggattta taaaagaccc cattatttta acttttgtgc
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aacctqtttq aaatqtataa aaaacctttt acaaaccaaa agqtqqcqta aqqttttact
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gagttgctga agacatctta ctttcttgaa tttctactta aacatccatg tggtgcactt
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qtacattaat tectacatat atacttttat ttttagtgac cacatttett tgtttcaggt
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gtaaaattaa aaaatatatt gtacacttag catacttggc ctaccaaatc ccgtctaagt
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tctqaqcaca ctctctcctc aaaagtatca tattcaacag cattttaaat ttagagagag
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agtttgatga tacaggtttt aaaacaaata agcatgtatt gaaccaagtg atttaagaca
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aaatatttca attgtttaca gcttgggtat gagagggaag atgcaaattt aaggtacatt
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gaaggctgag tgtataaaaa ggtggaagcc tctagaaatg agaaggctgg gtgtgtggga
                                                                       240
                                                                       300
ctcatgctgg tgccttccca gacgaaggag agggcccaga ggaggcagct tcctggagca
gagacggcag caggagcgcc cgtgcccggc atcacctcct cttcagcacg gatatgcagg
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                                                                       120
                                                                       180
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gcacctgcag ggacttcagg gttgggtaga agacgacgtg cctcccactg cggctcttct
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gcgctgtaga gtaatcgtag gtcatgaagc tgaaaccatc cagnaggggg gcagttntca
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ccctcccctg tcctcagcca gtacagaagc caaatgtagc cccagcccta gactccagcc
                                                                       180
caggcagagt ccaagggagg ggtgtcaggg tcagaagtca cagggagccc agtgactatc
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aaggtggctg agagcaaggc tagggtaggg atggggcaga gaaagggcag ggggtgcagc
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       410
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aaggcactcg cgagggggac ttcaagcccc tcttctattt cttcatataa aatcaggggg
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atggggaaag ctccaagggc gagggaagca gagagtttct ctcccagcct atggaataag
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g
                                                                       241
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<211>
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<213> Homo sapiens
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gcccagccac caccccgaga acactatttg ggctggagtg tgaccgccga ggtgatcctg
                                                                       180
gcaggaggct ggggttggct cctcgactcc acaaacactg aggagtgggt ggggacacca
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tgctgggcct gccaggggga aggaggagcc tgg
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                                                                       120
gaaatatata tatgtatata tatacttcta acattttatg gaaattaaaa atcagaggct
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tttggtctct ccatttactc taggtcaagc tcatttaccc cagaggacaa agaagggctg
                                                                       240
cetettetag accetecett eteetttgte etetgteeca eccageaggg aaacaagete
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cacactggca aggcactggc ggatntgggc aggccagttg gacatggata gatgagaatg
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acaactcaca gatgtcctag cttctgctgg cccagctgcc ancactgnca tcaccctttt
                                                                       240
gcccagcatg tgtgcattgt cacccaaaac atcttgaaac ttgccattag tgaggcattc
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aaccagagga agggtgtgct ctgaaaagtc aaagtaacaa taacagtggt cattgtacag
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cacaaqaatq aacaatqqqc tattctttqa aaactcaaaa caaatqattt acacaaaqac
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ttccagataa gtcaaatgtt tcctctctcc tactcctctg atataacagt attgaatgaa
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qttcaqtqat qtctactqqa qqcaqcttcc atqccttctq qqqtcctqaq tctccatqqc
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ttgtggggtc tgggtccccc ctggattagt ggatggccag agtggcatag acactgggct
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cagctggaga ggccccttcc tgggatggag gaggctcagt tgccttctgt ctgaagggta
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aagcagtgtt caggcagagt agtctcttgc cagagcagaa caaggagtcc tggtggccaa
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gtggcaagta tgcaggctgg gctggtccct ggtgggactt ctcctgggct tttcctccca
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tcatcttcct tcacgtgtct ctcagccctg gcagagtttg gagctgatac cctgggtcat
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atgtcaaaca atatgtgatc catactgtgt gtcgtccttg ggggtttatt tgactttgtc
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acaatgacag ccaacagtga gactgataag cctgtaaaaa taaaaaaata agactaatca
                                                                        240
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aatagacatg gcattttaat ctcaaagtgc aaaatcatct aactgaaaat gacggcattg
aaaaattcca gtggttaaaa atgaatcaaa acttcattac gcaggcagtg gaagtgtgtt
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gaaagattta ccaggggtgt caagttttag acactcagaa aggcaccatt ctagccatct
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tgattggata acatggtata tactt
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aggtgaagee eeteeceaca catacaetee ggtggatgtg agegagggte etgttgeeae
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atctggggtc aggggettgg acatgetgee etteatggga acettetggg taceteteag
cacagtaacg cagetgeagt etgteggtgg gggeecagge taggggeage accetetttt
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ggcatacggg acatgcctgg ctgcagctga tgtccgttag cctctcctga cacgcagtaa
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                                                                        420
ggagacetgg aagtgaggeg egtgggegtg gagtteeegg tggagettge tgeateagee
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ttgccccacc accetttcca tcagtettgt ctcatgggga tggggaaaat gaagacagaa
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egetttgeet tgetttgeaa teecteettt gaaggeette tgteeeagga ageeaatgtt
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catggcttac acgcaqaaqq qagaqqaqat gaccagagga gaaatcaggg gaagaaaagg
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caacagggga ggcaaaggga aaggagga atgcttaaaa tatacagtga aatttgagta
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ggatteteta eteaaagaet tetetgggaa gtgteeagaa ttgaceaeae aggtgetgae
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gaagettttg caggagetga gttgttcaaa ggageetgeg ataagagagt tgtctagtga
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gc
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taagttaatg taaaggacgc ttaggtgtgg agggccagtg ctcagccgtc tcctggctca
                                                                        180
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gaacaaggca ctctgggctc cagttaggac actgagaggc cagggaaacc aacatgccct
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ggagaaaggg gcttagagac aaaccggaaa agcacagcat ccaagcaggg tattcacgca
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tggggggcag agtaggccca aaagttgggg gttgcctgat gcggtaagag cacagttgag
agnaattncc a
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qctccaaccc tctggcctct ccgggcactg cctcacagcc gatggagcat ggctgggcag
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qcagacagga cacaggctca gtcacagggt gtcaggggga agctcttcta gctggaatga
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ttggaagttg geeeagegge tggggetggt etgteeette eeeteetggg aagtteeaee
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tccactgtag ttaaggccac caggatgaaa gcagggttag gtccagggac ccagtagagc
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cttgggatgc atgaggtggg ggtaaatggg cttggcagag aaatggagat tgggaagggg
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cctgattaga atagaaactg atgatgttgg ttcagcacct gcaagatgag gaaggtgact
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gcagcaacct tagagettee caaaggaage aagtgatgee eccatetgee aagagggtae
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tcaattttac ttcactgtct catcacttga gagactggtt aaggcaagaa acccatttct
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taacattttt tttattttca aacatttgaa aagcaacacc aaaacgtatg cagttaattc
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ctcaattctt tcccttagna tagcactttt taaattacaa aaccacactt ac
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catctcattc tctcaaaaaa ttctacaact atacagctgt ttgctccatt atttgcatag
                                                                        120
gaaatgacca caatacaaaa ataagaggga aaaagaagca aaacagcaac cgatttctgc
                                                                        180
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      469
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ctgagaagag gggatctgag ggagatccag ggatcaggca ggatagggat ggggcaggac
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atgaggetgg gggatgeaga ggttaggtgg gagaggetae eggagtaaga atgaggetgg
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taggggaggg agaaagagag caaagagaga gaggagcaat tgggggccag ctggagagct
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cagatggagc aggtcaggag gtggaacaat ggcagagtga gggtggaggg cgcagtgtct
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ggagaggcgg aaatgagaag gctggggaga aagaagaggg tggcagctct ggtgcagggc
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acagtggtta gaaaagcaag actgggagca cgctgccaat gatgtttcat ttgccaccat
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ccgttttcat gacctcctgt cacagctgga tgatcaatat agtcgctttt ctttggagaa
                                                                      420
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acgecegaeg cagaecegga ggageateag caaggggeee gggeagagaa teggetatgt
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aagaactcac tctacttctc aggacaagct tttgctttta ctgagtggtt tattataaaa
                                                                       360
                                                                       420
tatqaagtga catttattaa ttgtaaggga aatatgattt acgggacaga actcatcaaa
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caagcaaacc tgtcaacgtg aaacacgtgt gcccagatag aagacgggta gtacctgaag
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gtcctgttga tgggatgttt ccccgagttc tttctattga tgcgttcatg ctcttgaccc
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tgagtgcagc acttctagac acacacacag acacacatca cttactcata aacggcacag
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cctacggtac aagaaaaagg gcaaggtagg taagggcacc caacaccctc ctgcctgcag
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ggggccacag ggttaatgtg ccttcctgca cgcaggctta agagggataa acaaggagag
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ggctgccctt ggagaaggcc tgcggataat agtgactgag gcacaggtcc atgcagggga
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aggaagcaca gttcacagag tggcaagctc agtgccagcc agtgcaagca acaggcagtt
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gaggccaaac aggctcttcc cctcctcttc acccatgcca cagcattaaa taaacaaaaa
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gcaactettt acagcacaaa etacacaggg aagteettee teecageeet gggegcacag
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aatcatctgg aagttcctgc taaattaaag catactgtgc cagagctccc ctctaatcaa
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ggaaatcaca gactcttaca tgagtttaca gttaacccca ctgcaacaaa ataataaatt
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gtcactgaca tggcccagct atattaacag ac
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ggtcatgatt tctgctatta gctggcctct ttgtaaatca acacctttgg gaaagatcgg
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caattcactt aggacattca cctgcctatc ccagaacccc caatctaatg ccggggacca
                                                                       180
cagagaagga aaggggtcag gggtcctttc ttgtaccagt gagccttccc ccagttttct
                                                                       240
catgcacaca acagtgcaat accaagacga gtacttttga ccaagtataa aaccacagag
                                                                       300
                                                                       360
aagaccaaaa tgtacaaaaa tgggaagaga atgaaaacac aaaggcacac gcagccacaa
atacacaatt aaccttttag gggatgagca tctgacgagg tttgtct
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caagetgact taggatgeaa tggtacagac accageettg ggggagggtt etce
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cccaaagtgc tggggttaca ggcgtgacac gccatgccca gcctaaaagg acattcttaa
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                                                                       360
ggcagaaaga agggggcagg caagggtggt ctcagccccc agatggaagt cagagtgggc
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ggtggtagtg gggagagagg gtcagggggg cttggcaggg atgcaggcac catgactttt
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gtgaccagtt cctagagacg catgggtgta gcctcaggag gaaagcgaga ggagctttac
                                                                       240
                                                                       300
catgggaacg aaggaaaggg acaacattgg gaggcaaacg ttgggagact agtccagaaa
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ccttaaaact tttccatata aaaataaaaa gtccaagacc agattatttt tcttctggtc
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ataaatgctg atttatttac aggtgccttg ttcagaccac cattataaac ttgggataaa
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atatgtgtgt attaaagcct cagcatttaa tgtcagggtc ctttgaagat tcactcaagt
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gttaagacgt ttctggaatg cagcgtctct cccccatagt caacatggtt attatatctq
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taatctatcc agaatgatag aagctaac
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ccgtgaaagg catgattggt tttggcacac agagtggata accatacatt ggctggaatg
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tggagaaagt taaagtgtaa ataattacaa agactgacat gcaactctta ccttacatta
                                                                       300
ttcatctaca qactattttt ctcccttaqa qatqaqqaqa tqqccttaqt aatctqttca
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gagtagctga aaagaccaat caatacacat tagaaagatc tgcctgattt c
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<223> n=a,t,g or c
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caataaatat aattcaaaat ttgtaaacta ggtgaccaga tacatgagtc ttatttttrg
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taaaaccata taaaatattt atytca
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<212> DNA
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gctgagtggg cccgccactn tggaagagag gaccctggag ggagggtgtc cttggacctg
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tggaccgggc ccaagaagaa aaacgtccca tcctaggccc agcgtggatc ccaccaccgg
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ccgggcttca tctatgaaag aaatggcctc agggaaaaac tgggacaggt tttggctcca
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caaattgggg gtgacgttca aga
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ggccgccacc ccgtggtccc ctctcctggg caagcgccca cccccaggga acaaggtcca
                                                                      180
                                                                      240
ggcaggccag ctcactgcac gcactggcac caccacttag ccatacaggt catcatcatt
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gtettetgtg tatacactge caetgtgeeg gaeeteeact geeetgaetg gg
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gaactgcagt tntttcaagg tactacacta ttatttaaaa aaaaaatcac aaanagaaaa
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atgttatcac tacaagtagg gatttaggaa gngagnaaat tctgggcagt ctgtctagna
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gggttaaaac atttcatggc atttgtgagt tgctgttgga gagttgtttt ttatttgtcc
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aaacaggtgg gtaggtgaga ggtcacgggg ctccatctgc aagctccatc tacaaggcat
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aggttccaag cacaaaacta gtatgaccgg aggcttcaat ttagaagatg cagcatctga
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aaacctttac cccaggaaag gaggggtgcc tggctgggat tncatggggc tctggaacaa
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gcattttatt caaagctg
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180
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tgtccctttc actctcattc tctcacaagt atactgtaga gttttccaga ggcttcatga
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                                                                       300
agtgtgtgtg gtgacattat tgctcccang gctaatgtaa tgtgtgcatg tgtatttatt
ttaaaaatqg attcqcttta atttcnagta tgggtaagta tccaaagnac caaatataag
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ggctagcaca caagcccctg ccgcatttgt atgatctgga gcaganctcc tgaacatctt
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catccatgtg accetgtgca gcactaagaa ggtgtgtccg ataaattgca attacttett
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ggtgetgtet gteageateg geeagetgtt geteeagaga ttteaettgg tgetgeagag
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gcactttcct cattcagagc tcttttggct gcgagaaaca gacacccaat caaatcagct
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tcancaaaat gagagaatgt atcctgacaa gggacgctca cagggcctaa aggaagagtg
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caggegeetg tgatteetet ggteeetgee ttgetatgeg tatetteeet etgageagag
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acacacatgg acacagtcan agctccaggg tttctatgtg ttcaggtaag gganctgcaa
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atca
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       DNA
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<400> 473

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agaactgctt tcctgttaga tacaaaattt attttaaaaa taaataatta tattgacctt
                                                                       120
taccatcact tgtctaaatt ttactcatgt ttattgtgaa gacacagagg tgaattagaa
                                                                       180
gagtatatca ttatacattg tcaaataaag cgaaggtttc cttatccaaa tagagagaat
                                                                       240
atatatgtga ttacttaata taaagcaaaa gctatttcta ccaaagaaca gacatgcagt
                                                                       300
tattgatctg gaattggcat cgattacaaa ctactctngc aattcttcct ctccccaatt
                                                                       360
aaggtgtctc tcttgaactg gattgaaagc tgtttgataa gtatactttt ttcaagatgg
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tgtgcncagt tggggggcct tttatta
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<211> 164
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<213> Homo sapiens
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aattacacag ataattagag atatatgtta catagaaatg ctgattttac actctcttct
                                                                       120
gagtacaagc atttgattac agaggctcat agcacaacaa aatg
                                                                       164
<210> 475
<211> 510
<212>
       DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)...(510)
\langle 223 \rangle n=a,t,g or c
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                                                                         60
aaagattgtt ttaatttgct gtcctacttc ggtgacctga tgaatacact ggtaacagtc
                                                                       120
cccagtttga gtaagatcag ttgaagccct tactgtataa gtccaaaatt taagaaaaat
                                                                       180
gaatctcacg atgagettee teaggetteg geogtgegtg gaccagteag etteegggtg
                                                                       240
tgactggage agggettgte gtettettea gggteactet gaaagggttg tetgggettg
                                                                       300
gtcttgcctc ccaggtttca cgcgctgcag gttttacatg gctgtggtgg atccaggctg
                                                                       360
qgattccttc tacttcacaq cqqtqqqaqq qctcaqaacq acaqctqqqq tctttccaca
                                                                       420
gtggacacaa agaggtacgt tccagttctt gatcaaatng atcactgggg agaaaaggtg
                                                                       480
aactqqqqaq aataantaac aqqccattta
                                                                       510
<210> 476
<211>
       348
<212> DNA
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<220>
<221> misc feature
<222> (1)...(348)
\langle 223 \rangle n=a,t,g or c
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<400> 476
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gagggttgaa agccccactt gggtccccga gggtccattg agccctctca ggccagctcc
                                                                       120
aggaateetg ggeetgggte acagageaga gttgettgea gggteetagt ggeeateggg
                                                                       180
ctggggcagg acatcatete teagagggte agaggeteag agetgggtge ageteageag
                                                                       240
gtcacqqccc tccaccagct ctgggttctc ccgcatcatg tgggttgggct gctttttccc
                                                                       300
ccaccagggg cctnagctcc agcagctngg tggggtnagc ttagcaac
                                                                       348
<210> 477
<211> 415
<212> DNA
<213> Homo sapiens
<220>
<221> misc_feature
<222> (1)...(415)
\langle 223 \rangle n=a,t,g or c
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                                                                        60
tgaaggaaag gtggagggaa gaagggaaga attacaatgg ttagaaaaga gcaactaaag
                                                                       120
attatttcta ttatacttct gaacggtaaa ctagcaattt taataaatat tggggtccac
                                                                       180
                                                                       240
ttaaatctat taaagcagaa agtgtaaagc tatctccatt agtgaagaga tgaagtgaca
aaaaccaatc agtttttgta ggcaactgat ttaggaaaat cttgtactga aatcaacaat
                                                                       300
tagacttgca catcatagga ttttcaaatg tttgctgaat tggaaaagga ntttttcccc
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ggggattttt tncccccgag ggggtccttn ttccaatggg ggacctccgg tntgg
                                                                       415
<210> 478
<211> 396
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(396)
<223> n=a,t,g or c
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                                                                        60
gcggacacag cagtgettee aactteaatg gtteecaggt teaaggttee teecagegga
                                                                       120
ggtgggaggg caagccctca cacctggcac ccctgaagtg catactcctg gaggaagtcg
                                                                       180
ttgagetggg acaggetgee egntggegtn geteeggaca aggettteag agggeatnte
                                                                       240
ctcgatccag ctattcgagt ccagcaggta ctgggggttt ccctcgaggt cataggtggc
                                                                       300
cccatntaga cccatgatca aatattcttt cccaggttcc aagcgaaggg gccaggaggt
                                                                       360
tcgaaccagg nanttncgca tctgattagc agcggc
                                                                       396
<210> 479
<211> 322
<212> DNA
<213> Homo sapiens
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<222>
\langle 223 \rangle n=a,t,g or c
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gegtetgggt ttggtteett ggaegteaeg gtteetggat gggggtgggt gggteeeaet
                                                                         120
ccctaagtca tggtcccacg ggcctnttgg gatttttttc caggttcaaa gtgcactgag
                                                                         180
aaagetteae agttttaata etteetagat geteaaetga ggeaaagtga caaaatggee
                                                                         240
etcecacece egecegeeae aaaantaaaa teecaageee etggnagetg etgeteagee
                                                                         300
cttatgaaaa aataatacaa ac
                                                                         322
<210>
       480
<211>
       330
<212>
       DNA
<213>
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<220>
<221> misc feature
<222> (1)...(330)
\langle 223 \rangle n=a,t,g or c
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                                                                          60
gtatggccga ggtcacctgg tggcagggtg ctcagggatg gccacaggtt ctatagggcc
                                                                         120
ctgcagctgn aantctctag tcagttggga tgcttcacct tctgccccac cccaaggggt
                                                                         180
ttgggcaatn catggatgta gtagttttcg taattcgcag ggatcagtga tgggcactga
                                                                         240
gcaggettga tteteacaca catatgeagt ggeetgggte ttecaacegt eggagggtae
                                                                         300
tcaggaaagg cancttgccg gacaagaagc
                                                                         330
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       481
<211>
       207
<212>
       DNA
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<220>
<221> misc_feature
<222>
      (1)...(207)
\langle 223 \rangle n=a,t,g or c
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                                                                          60
getetecace acetectete cateettggt ecagegeace tntgeceagg geeggeatag
                                                                         120
ctcacaggtc agcaccacac gctccaggcg cacggctgcc acatacacct tgccgctggg
                                                                         180
                                                                         207
atacacgatc cacgaggaga cgtctgt
<210> 482
<211> 391
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<212> DNA
<213> Homo sapiens
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                                                                         60
aataacataa aaagcattta teetteetee etagtgeaaa atggtagaeg catttagata
                                                                        120
attcacacag tgttggaaat gtcatgacaa tgcagtgctg cacagagaga tactcaatcc
                                                                        180
caaactcctt tggtggatgc ttgtggtagg tcagttctag atgtcagcgg tttctctgaa
                                                                        240
gttaagteca aataaaaaac agcaegtget eetgeactet eecageggag teaggeteet
                                                                        300
gtgegegege cecetetggt etetecette etteteggte tgtetetgte taetgegtnt
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ccctcccact ccqctqqtct cccacaqttc c
                                                                        391
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       465
<212>
       DNA
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<222> (1)...(465)
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                                                                        120
tctgaatcaa aatggagagc ctctcaagaa aaagagctat gcagtcagca atgacttaaa
                                                                        180
ttagtcagga tagcaggcat ctggggttaa ggctgtttcc accattttgg tctcaccacc
                                                                        240
atatacgngt gggaccacag ctgtgtagca cttgtttcng tcataagtnt agcaggtctc
                                                                        300
tgtagcactg tetteateae agatattget etggggtage agtaactate tgattateee
                                                                        360
agetecaett etgtagggne acatttttta cagaggteag acaaatgggt acacaaatet
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ggttccccaa tgggtnaggt ngggtccaga gntattctcc ccgtt
                                                                        465
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       484
<211>
       301
<212> DNA
<213>
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<220>
<221> misc feature
<222> (1)...(301)
<223> n=a,t,g or c
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                                                                         60
ttgacaggcc tgtgggggga gaatggaaac agagatgccc cttggcntgn agntagacac
                                                                        120
```

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agettgeagt geacaggeag aggetetggg teagtgeagg aageagagte accgeeagtg
                                                                     180
ccttgggatg gggatcacag aaggtgacct gtggctgcat gagccactgt aggactctga
                                                                     240
cctcagtggg acaggatgac acaggcagct aggaattctg ggcaggggca ggtnggcatt
                                                                     300
                                                                     301
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      485
<211>
       211
<212>
      DNA
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                                                                     120
cggaggggac tcaccatgaa tatctggggt tgattcccag atgtgtgttg cttctctatt
                                                                     180
gcaagcagat tcccttgtcc ggatttactt c
                                                                     211
<210> 486
<211>
       341
<212>
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<213> Homo sapiens
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                                                                      60
acaatctgga tgttgacata gaaatgcaaa tttcactata caaaggtaag gctccaatca
                                                                     120
                                                                     180
cagtaacatg gcccccatat ctctagtatt tcaatgaaat aaactcattg tgaattcacc
ccgagttgtg tttataaata ttagacaaac cacaaaatat attccaaata cataacattt
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300
tccaacttgc attagcacta aaggcaatat tgtgtgtgta t
                                                                     341
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       487
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       376
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      DNA
<213>
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<222>
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gcccagggaa gccaaaagtt tggacacctg tgatttacag gttatgccta gatctgaaac
                                                                     120
agatececat ecetectaaa getegeecae tggttatggg eeetgtttet ettagaaaca
                                                                     180
                                                                     240
ccacacacat catttgggaa aagcacactg agtagaaaca tggcctgaaa gggtggtggg
                                                                     300
eggtggaeet ggetteetgt ggeeagaggt eageggaega tagaaatggt etgateggee
                                                                     360
acagcaaaga cttgggaaga ttgggccccg ggaaggacac attgattggg cacagagcac
```

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376
tgtgccggac gngggc
<210> 488
       525
<211>
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<221> misc feature
<222> (1)...(525)
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                                                                       120
tggctcagtt cacctccagg acctcagtct ccgggaggcc gaacttggtc ttgtgcttgt
                                                                       180
cgaagagett caccagggee tecatgtaca tggtgtggta caggtegatg tettgetggg
                                                                       240
ttgggtgctc cagcttgggg atggtgatgg gctctcccac aacagtgggt gatgggcttg
                                                                       300
gagtagggca ccagccccca aggtgtcgga ggaagaagag gcctcgacca tggaagatgc
                                                                       360
atggggcgaa accaatgtat ttctnggaac ttcttctggg acccatcggc cccaggagcc
                                                                       420
ctcctcgaag atcacctgct ttgtacactt tcattctctc ccaaaggggg tagatgggaa
                                                                       480
ccaggtcagc tcccatgacg cagggcccag ttttnaaaaa aagcc
                                                                       525
<210>
       489
<211>
       470
<212> DNA
<213>
       Homo sapiens
<400> 489
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gctataaata taggcacatt ttttaaaagt ccagatacat ccaaaaatta ccccctcact
                                                                       120
gtagcctact ccaatcccct caagacggaa tatctaacag tgtttggaaa acagggtcca
                                                                       180
                                                                       240
gaaaggccct gcccattaat tttaaaactt tctgaccatc aagaccattc tttcctgctt
caaccaagca gagtcaacaa ggatcatgtg ttttcagggt tttaattgca ctagttgatg
                                                                       300
                                                                       360
aattaagtaa atgcctctgc ctgggtagtt tgtaataggt ttatgggttt ggtttctcct
acttagttca agtcagagaa agaaaaacca atatctatat tcctattggc cttctttaaa
                                                                       420
tecetatgag atggettaaa aggatgteae tgeaceagag gaeteaettg
                                                                       470
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       490
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<213>
       Homo sapiens
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<222> (1)...(553)
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                                                                        60
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                                                                       120
ctgacnetgn gangeaggge egateggtgg gnannggnnn ngtngtteea tgagttegnn
                                                                       180
tcagaancet agneeeggea ttetgggeee etggetette eagagteeae atteaaggea
                                                                       240
acctgagcac aggettgagg gagagtggag aaaggecagg aaaggatgee cacactettg
                                                                       300
cctqccaqqc ccaqqaccaq ctctctccta cactnqqacc caatttcctt ctqqatcaca
                                                                       360
gagctggtct ggatcaagac aatgtggaga tctggtgtgg aggctgtggc aggtganqca
                                                                       420
geogggetee etggttagae ecceaggete tetttageae nagatgggea etttaceaae
                                                                       480
aggtttgggt aaaaatgtet aengagaget atgeacaaee tgggtneeet tetgggetee
                                                                       540
taaaaqtcaa qqq
                                                                       553
<210> 491
<211> 476
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)...(476)
\langle 223 \rangle n=a,t,q or c
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                                                                        60
gtgatatett etttagaeat aatgetatta agageaeatg etttataaaa taaaaetggt
                                                                       120
ctcattcata tcaggtgcag aaagccagtc ctgaaagcat agactatccc ttattctggc
                                                                       180
tgttattaag gaaaaaattc atttaaaaaa tacagtaaag attgaaacca agtttactgt
                                                                       240
ttcttgaaca gaataggaag aaaatatttt aaatggctga gctggtcatt agactattac
                                                                       300
tcatttatct taaaggcaga aacttgtcaa cccaactacg tgaaacagag aagcatgatt
                                                                       360
tgcttaagca ggcgacatta gagttaggcc tctccacngg gagcttcccc gaccgtcagc
                                                                       420
acgtggcaga cagggatgcg gcccatcatt ccgcagggaa gaaccggccg ggccgg
                                                                       476
<210> 492
<211> 455
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)...(455)
\langle 223 \rangle n=a,t,g or c
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                                                                        60
ggtggaaacg cagttcagag cacgggcggc acacacggaa catctctact aagactcgca
                                                                       120
ctccttttat gttagttcaa cgaaagctct aaatccttgg cagagaacgt caaaaacagc
                                                                       180
ctcatttaaq tqqaaaatat ttqtcttcca ctcttctqct atqtcttqaa tcttqtctcc
                                                                       240
acctggtaag caaactatgt tttttttctt tccctttact tacagaaaga acactatcac
                                                                       300
ctgccttcat ttagaaggaa ttctcttcag tgcattcaaa gcttctcccc ngcaacagca
                                                                       360
gggggatttt cagatagtgg taacttgcaa agtgcttcca aaacatccca tcctctaccc
                                                                       420
actttccccc ctcttggaat aaataactgg ggngg
                                                                       455
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<210> 493
<211> 580
<212> DNA
<213> Homo sapiens
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<221> misc feature
<222> (1)...(580)
\langle 223 \rangle n=a,t,g or c
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                                                                         60
aatataatca ctccactggt tacctaggcc tagacqtaca aaaggacacc catatctcat
                                                                       120
caqqaqaaaq acaattttqa qtttctqqqt qtaqtaccaa qtqqttatqa tcaccacqta
                                                                        180
cgtggtctat ccagttaact gtgtggcaat ttgctatttc aagtcctctc ataacagaaa
                                                                       240
ttactgaaat atgtggaaca ccagtcaata taaagaattc atttttaaac agactagtga
                                                                       300
atttgtgtca taaacacact tgcgtatgga tattaggaga gcattgcttg aatatctcta
                                                                        360
aaactatttt taggaattaa aagctttcat agttaatggt atgatattgg ccttcagaat
                                                                        420
tcatattqat aaaaqcaaac cttaqtcatt taacaqqaat gtttaaattt taqaqattct
                                                                        480
aacatgcgat gccgaaaaat cctaacattt ccacttagta atgtcagggt tgtgccagtt
                                                                        540
ctaatttccc atagctagta acatcagaaa atatntatca
                                                                        580
<210>
       494
<211> 473
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(473)
\langle 223 \rangle n=a,t,g or c
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                                                                         60
tqaqccccaq cctaqcccca ccatqqqntc atnaqqaqqq qaqqcqcaqc qqqqccccct
                                                                        120
gctgaccctc tctctggggg tcttcctatg gcggggccta ttgcttgagt gggggaggag
                                                                        180
ccatqcaaat qaqqqqqca qaqaaqacqq tqacacaqcq qcctccqtqa qccacctcqt
                                                                        240
agccctcgnc cttgacttcg tggctncgga tgatatagtc caggttgttc tcttccaaga
                                                                        300
aggeettggt gaegteagge ceaaactgae ageteaegee egnttgetga ttegageege
                                                                        360
egttetgttg getgtggate tgancaagaa caaggteaca catggggeee tgaatettgg
                                                                        420
gggttttcga ttccgctcaa attttccgga tgtcattcan ggtganaccg gtt
                                                                        473
<210> 495
<211>
       411
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(411)
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aancetqetq tqtqccaaqe ettteeccaa aqqaqqatat cagtgnnnna qnaaqtetea
                                                                        120
gggtggaaag gacctggacc acacagagca ggactccaga gcctcctcca tatggcagga
                                                                        180
atcaagcttt cacaggggaa acgcaggatt tcccacacat gcccatgcaa cacttcaagt
                                                                        240
cacqcttqca ctggccatcc atctcacaga aattgggggg gttnagcatc naacattqqc
                                                                        300
canaantcac tnqqnacttn ccaaqqqttn cnccttqttq qqnttnqqqq qqtnnacaqq
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\langle 223 \rangle n=a,t,q or c
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ttcatccgtt caatacacat ttcaagaaag ctgtattgna ccccttnnag tnggtaagtt
                                                                        180
ccagggccaa agaaccaaaa taaatccaag gagagagacc aacaaatgta tatttataac
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acagagtaat aaaacacaaa taaatgtgga gttatttaag catgtaagat ggtacatgct
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\langle 223 \rangle n=a,t,g or c
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                                                                        120
tcaacatcat aatccacaaa aqtctcannn nqaaaaccgg tgccggcgct ggatgtgctc
                                                                        180
tctqaaqttq qcqctqcqqn aqttqqqqqt ctcccaaqqq catcqcggca catatnggac
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aanccacagn ttt
<210> 498
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<222>
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cteggtagtg cccttctcct ccaggtagcg ctgcacacgc tcgatgatgg cacacacctg
                                                                      180
ggcctcatcc ttcaagtgct ccacgtactc ttgggagtga gggtcangta ttntgcatta
                                                                      240
ttttggtaaa ttcttcatcc attcgttcca ccagagttag gatgcagcca cggacacgca
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nggcttggtc agcgttngtt gcaggttctc antctcttcc agaatattct gctccaacaa
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aaatgtttgn ggatttggca aacagggata nccatcagct cattggatgc ag
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                                                                      120
actocgcatg tocccagagg cagcactoca nnngggtngg gggnagggga ggggtgctot
                                                                      180
                                                                      240
acgccaggct ggggagctgg gacaggaggg aagacgtgca ccctcacctc ttggctcaat
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ccctctcccc gggacctggt gctgcccca gtccctgggg tgngctggna nanngggctc
atgcaacaat tgagtagaca ggaggtggca cggaaacgtg gccttggtgc cccttggcgg
                                                                      360
gggcgggagg actaaagggg ccatgctgtg gccacagcgg gtccaaatgg aagtatctgc
                                                                      420
agtgtacata caggagggtt ggagat
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       394
<212>
       DNA
<213>
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tgggaaaact attattcacc caagcctccg gaaatgtaat gtaccagcag gcaaaaaaca
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gttcttcatg tagtacaaaa tgaaacgaaa caaaaacaaa aacagaaagt aaaaatgaaa
                                                                      240
                                                                      300
ccaaaacatt tcttaaattc tagtgccata gcttttttgt ttgtttgttt tttgttgttg
                                                                      360
ttttqttttq ttcataagaa agagagaaag atactactta tccgtcagac acatgcatcc
tcatgtggtc gttgaactgc tccgatttgg tcaa
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<210> 501
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<212>
       DNA
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                                                                         120
ggaccaggga acaaaggctg tttgnnnnnn gggngggaca nannancccc aatcanntgn
                                                                         180
nnnanannaa gctanaatta caaatnnann acaanaanta atgctgannn ctgggagagc
                                                                         240
tgcanagngg ggaggcccgc tcctctttgt cagggtctat ttggcagtga ccttgctctg
                                                                         300
aaggcgatgg tactccttca gctgacctng gccaccccgg atngaa
                                                                         346
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       502
<211>
       234
<212>
       DNA
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<222>
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\langle 223 \rangle n=a,t,g or c
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                                                                         120
necegtgeaa egatnegagg gateegegen caenggaagt tettettget geagggettg
                                                                         180
gagagegeeg gecaegteet ageeteggte egactegtee agegtatgge eege
                                                                         234
<210>
       503
<211>
       451
<212> DNA
<213>
       Homo sapiens
<220>
<221> misc_feature
<222>
       (1)...(451)
\langle 223 \rangle n=a,t,g or c
^{<400>} 503 tttgcaatcc tcaaaccgtt tattgacagc acaaggctca acagcaggtg agcacgtgag
                                                                          60
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                                                                         120
gccagggaca tggtgagggc gtggcatcac cacgaaggga gcataaataa cactggcagg
                                                                         180
tgggtgggca gcaggagagg gagagcggac annacacggg gacacgcagg gtcggcggga
                                                                         240
aaatgctggg acagggtcac acggggattc ggacacgcag acacagaagg gatcatggga
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cgcccagagg atgccagagg gggcagacac accagagact cggggatggg catggtgctc
                                                                         360
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tgcccgtggt ggcccctcct ccaatactcg ccctgggctt tgcaggcagg actgggcggc
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tgagcactct cccagcagag ccaagcaggg g
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gagacataag acattaatca atatatgtaa gaagaacatt ggttcagtgg ggagggagct
                                                                        180
tccaggtcac agataggtga gacacaaaca gttgcattct tttgagtttc tgattagcct
                                                                        240
ttccaaagga ggcaatcaga tatgtatcta tctcagtgag cagagagata actttgaata
                                                                        300
gagtgggagg tgggtttgcc ctaagaagtt tccctaagct tgagttttcc ttagtgattc
                                                                        360
tggggcccca agatattttc ctgtcacagt tgacatcccc aacacagtgt ttagggctca
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gaaaaagata ccctaaa
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<210> 505
<211> 565
<212> DNA
<213> Homo sapiens
<220>
<221> misc feature
<222> (1)...(565)
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gtcaattgtc agtggagtcg gtggggtgct aagtgttctg aactgaagta ggtgcactaa
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ggttccaage teeetgeaag gatetggaeg ggaggaaage agaggeeetg aagggaaaaa
                                                                        240
agcctgcttc ccaatactta ttttttatta ctgtacaaaa agcacactct ccctcttttt
                                                                        300
gtctctccca ccaacggcac cccccaccc ccaacccaag aggactatac atggagtgca
                                                                        360
gggacagagt tgaccaggag gcctttgtcc ggcaccctgc ccacaggctg agctcagccc
                                                                        420
caggecettt caggeateta gacaeteeca tageetggte angetgggge aagggagatn
                                                                        480
ccaggtcaca catacttccc tggaagagtt ggacttaggg gtaagagccg ggtgcacggt
                                                                        540
anccagnett geteteatte ceang
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<210> 506
<211>
       440
<212> DNA
<213> Homo sapiens
^{<\!400>} 506 agttataatt actttattaa ccttttggtc tttcaacatt tagatagtct ttcttaatat
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ttccaggaga gtacctcatt tttattttga aaaccattca gcacatttat cttatgtaac
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atgcagagat attatctatc tgtattttta aaattttcct gttactcatt gatacatagt
                                                                        180
acttaattac atgttattcc atgtacactg aaaacaatat aggaaatata tacatctaag
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acttctactt tgtacagtct ttcattaaat aagaatactt acacatacat tttcagatat
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ttctaccttc ctgtatgtgt ttggaattgt atgtaggtag ccactgaaag aatttgggcc
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ccttgggagg atggcagtgg aagtccatga aqtaaagagc attctttaaa aagcagattt
                                                                       420
gattgcatac cttttagtta
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<210> 507
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<212> DNA
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<220>
<221> misc feature
<222> (1)...(427)
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ggtaagggte cetteettne cateceteta encanaagae accetecana gganagnaga
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agececagag cetgetgeet cagaggacet tggaggeaga caaattgttg tagtgatett
                                                                       180
cetgtecete gageaggetg eggttaggtg geaateteet getecageeg egaettgatg
                                                                       240
tecatgagee getggtacte etgattetge egeteaetat eagetegeae ategeeeage
                                                                       300
tgggttcaat accgctgatc agcgcctgga tatgcgccag tgggctccaa agcgcgcctc
                                                                       360
cgtttctgcc agtgtgtctt ccaaggcagc tttcatgctc agctgntgac tgcagctcaa
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tctcaaq
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tgacaaatca tataaaataa ccattttccg aaagacagcc acaagaccac ctgagaacga
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atgtacagtg aacceteega gaageeegge aaacaaggae cagtteeeag geaaaggetg
                                                                       180
ganggggagg aacaaaggag ctcagtgtgg ggaggagcag gaacttgtga acttaaaaca
                                                                       240
                                                                       300
ttgcacagcc actgccgagg ggtgggaagg agccgtggat gaagccgtga ccacttcatg
tccaggggca ggcgggttg gggcaactgg gncattgcag ggggtgggca gcaagccggt
                                                                       360
                                                                       420
tggaccggtt aagccacctc ctccattaca gacaggcagg ctcttggggc cggggaccag
                                                                       452
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<210> 509
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<400> 509
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                                                                       120
aaaaatacaa aaattagccg ggcgtggtgg cgggcgcctg taatcccagc tactcgggag
                                                                       180
gctgaggcag gagaatcgct tgaacccggg aggcggaggt tgcagtgagc cgagatcgcg
                                                                       240
ccactgcact ccagcctggg caacaagagc gaaactccgt ctcaaaaaaa a
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       510
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       404
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aatacaattt tcacaaataa atccaaaatt taaggtagga ttaaaaaagga gtaaaccaat
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acataaaaaa tgaaattgag aactgattta atactaaagt tctgaataaa ggtgtgcact
                                                                       180
                                                                       240
ttatgattga ttctatcttt ttgcacaagt tggatactcc agtttcccat cccaacatgt
tgttcgcaat gtgtgagaac gtgatgaaag acgatatccc cgtttacaca caaattcaac
                                                                       300
                                                                       360
tgattcacct gttctcgaat aaagcttctg tttggctgtc caccttaatg ctatgttata
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ccacaacttg ctccttctcc agccctgccc ctctcaatta aaacaatgct ttctttttc
                                                                       180
ttttcttttt tttgagacgg agtcttgctc tgtcacccgg gctggagtgc agtggcgcga
                                                                       240
tettggetea etgeaagete egeeteetgg gtteacacea tteteeagee teageeteee
                                                                       300
                                                                       360
aagetgetgg gactacagge geecaceace aegeeaaget aattttttgt attttttag
tagagacagg gtttcactgt gttagccagg atggtctcaa tctcccaacc ttgtgatcca
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                                                                       425
cccac
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                                                                       120
                                                                       180
ggcagaagac acagagtagt aaggcacggc cgccttggcc ccacagggcg ggcactggac
                                                                       240
ggagcgggcg ctgaatgggg cggctgaagg agtcggagca ggtgcagaca acacttagga
                                                                       300
cgtttngcag taggctcagg aggaggagcg ttctagggcc cccatgccaa ngtcaggncc
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328
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gctaagggca ggtcagtcca gtgtgtgggc cgcgggggtc acaggcatag cagnaggagg
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gggagtnanc tacccccacg ggnccacccc nagcccagtc caggggtngg agggaggggg
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      325
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                                                                    180
accggcattt tgataaattc ttaaagttta aaacantaca atcaggagga ttgcttttct
                                                                    240
cctcttcttc acagagaact aaagtgaata ttttttaaat ggctttgaaa gatttacatg
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                                                                    325
ggacacattt ctgtaaatcc aaaag
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      DNA
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<222>
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gcccccgcta cttaaaggtg gactgcagct ccttgaaggc cgntttccgc tgcttcat
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actcatttac ccggggacag gagaggctct tctcgtgtag tggttgtgca gaccttatgc
                                                                       180
atcacgggca tgagaagacg ttcccctgct gccacctgct cttgtccacg gtgagcttgc
                                                                       240
                                                                       269
tatagaggaa gaaggagccg tcggagtcc
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aatacagtat tttccttgaa tttttatgtt aagtatacat atgtatatgt gtgtgtgtat
                                                                       180
                                                                       240
atatatatat tigigtatit gigigigigt ticticitit tagagocagg gictcactit
                                                                       300
ctggtccagg gtaggagacc acgcagcatg atcacggcta cccttgtcca gggtaggagg
                                                                       360
tecagtagea taateacage teactgeage ettgaettge tgggettgag caateeteee
aggagatcaa ggctgcagta agccataatc atgcaactgt actccagcct gggcaacagg
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ataatcagca aaac
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                                                                       120
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ggcaagntgt ctcgctcttg ggggacgcgc ggccggggga cgcgtcctgt gtccggcccg
                                                                       180
gggctcccag cgggctccgg cggcagggac aatggcaagg ccgctcacca cttgaggaag
                                                                       240
accatecegg ceaggaeggt gtageceage accaggaaga ggaeettgag cagaeggtea
                                                                       300
                                                                       355
ctetteteet ccageteett ggecaggate tecaggaagg tgatgaagag gaagg
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       283
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gctggatgct gggcagagca caggggtaaa caccccacga gaggatgcct tggagggtct
cgtcacagac cagggggcct ccagagtcac tctggcaagg gtcctggccc cggtccagtc
                                                                        180
cagcacatat catgttgttg gtgaccacgc cagggtagaa gacctcacac tctttagggc
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tcaggatagt gatgctggag caggtcaggc ccttgtggaa ctt
                                                                        283
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       409
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cactttggga ggctgaggtg ggcggattgc ttgatctcag gagtttgaga ccagcctgag
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caacacagcg agacctggtc tcaaaattat tatacaatca atgcaagtac aaagattcaa
                                                                        240
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atatacagag tgggcggggc aggcatggcc acagaggtgg tattacaaaa tatacaaagt
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ggggttgtgg taattetata accagtaatg tetggggtgg tgeteetete eeaggagaet
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gtgagcactc cagtgtcagg gtttgcctcc agatgcaagt ttgttggtgg agacaatggt
                                                                        240
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gtcaccactt tgtttacaat tggcgcatct ctttcctgtc catctctcag gacttggatg
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gtgtagacgt attetactee tggagteaag eeggacacaa egatgettee tgagtetgaa
gtcacttete gtggtgeete teeteeetgg ettggtegta cacceagett aaaaccaatt
                                                                        420
                                                                        480
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ggaatagage teccaggetg cagtgtggta gagaetecag tggetttggg getetettgg
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<213>
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gccccagcct ccagagcagc tgggaccaca gacacacacc accacaccc gccaatcttt
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gcaattccag tagagaccag gcttcaccat attggtcagg ccggtccgga actcccgacc
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tcaggggacc cacccgccct ggcctcccaa agtactggga ttacaggagt gaaccaccac
accoggetet geetttettt gaeceeteee agaetggaee atettgetae teteteeagt
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ctgggattac aggcatgtgc caccatgccc agctaatttt tgtattttta gtagaggtga
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ggtttcagca tgttggccag gctggtcttg aactcctgac cttgtcatcc tcccaccttg
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<213>
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<222>
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gangcaagta aggnccaggg cagantcggc ttcaatggaa caacagccca gtgccctaag
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gcccctaact cttgctggct gtttcttgac cccaagccag ggttgggagt cctctgggca
                                                                        240
tecatttttn etaaaggane tggacagagt acacacagga aaggaagett teaccetett
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gccatctggc tccaggggcc tccagtccag cattcctcct tcttcccttn attgggtggg
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gccacatgat gggcagccag gctctgggct gttcccacta gagcaggctg caaacacagc
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catttttcag tgaggcttga tcttcttna
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<222>
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                                                                        120
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gagagaggca caagtcacag tcaggcaagg gagcctcagc ttcctgggcg gtggctnttg
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gggtccctcc agtnttcacc tgggaccctc ggccaggttg ggacanattc cagggaggcg
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aggttgcatg gtccagcggt gggtgcaggt ggcaacaggt tcggcgggtt ttgcaggttc
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caaaaggagn tttcgggttg gg
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<220>
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atggtnttct gtgtgaaggc cagcgnaggg cctcgtggca nccatgcagg agaaggtntc
                                                                       180
ccccttnttc cagtcctcgg ntgccacgcg cagtatgntg gtcacaggaa ggtgggtggg
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tgccctggct gggnttcctg ccgggatgcc caagttcagg t
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aaggcccagg ccatgagctg gggaggaagc ctggnaagaa accaccgctg caggtcaatg
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gagcctggga ctagtgacca agagttgggg cagacccagg gcactcacct gacagcttgg
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accegageae agagggaegt geagggtgge teatacteat actgggaagg cagaaccate
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acgatgcctc tttggggggt tcctgaaagg ggtatgggtn tctgggggaa gagctaacaa
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ggaccccaac cccatccaag gctacccatg ctccctncca gg
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       441
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ggaageteat tggeteggte caaceceagt tecaceacea gegacateag caetteetea
                                                                       180
tccactgggt ccgaatcgat gatagcaggg ctctgggcac cagcagaagg agagagtgat
                                                                       240
                                                                       300
tetgececte eegeetggge eecaaagtee eagttttgea ggggteetge eteceegggt
tggcctggag tggcagcagc atcccctgat actggctatt aagtttctgc agctgcatac
                                                                       360
```

```
tagccagcaa gtgaggggcg gggtgcaggt tgaaggattg ggggtttagt gggaggggtg
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gttgtaggag agctatttgg a
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gaggtccaaa gttgncaaca aaaaatggta aaagatttcc tcacgcaaga nggcattttt
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gcaaatacca tgcaaaacag gcagctggtg tgccttaaga gaatccctat aaataacaga
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aaagacactc caagcattcc tgtacgtgga ctcagagcac agagaaaaga aactaaaatg
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ccttttggat ttcaagatat ttggcactct tgtgattaca tttttttaca gtccattaaa
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agceggaaca nagceeggtg aaggegggag getegaagat eeeeteggga agggeggeee
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gagagatacg caggtgcagg tggccgccgg atcccagccg cacttctggc gtgagtatcc
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ggactgcagg ggccgggacg aggtcggtgt tcgaatcttc ccagctctgg ttggcccgca
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acctgggtta agcaggtcct cgtagcgttt ccgcaactct ccggaatctg gagtcttccg
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<211>
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qqaqqtaacc ccatcgtaag tggaggaaca tctagtgcct ggcacacgag ccggttctca
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ataaatataa ctcttctcca tcttcttcaa acctcaggcc aggtttcagt gacctcctct
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cactttctaa qattattttt gcttqctggt gggtttactg tcatttttaa ccacatctaa
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<210> 532
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agtgaggttg gtgagggtga tggaattccg agagtggggc acccgatctt ctcgaggtct
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cccactgaag tgctcgggat gatggcggat cctgtagcca gtgatggtgg ctcgaggagc
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                                                                    360
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ggaaacttgg tattttgttc aatcattaag aagacaaagg gtttnttgaa cttgacctcg
                                                                    180
                                                                    240
ggggggatag acatgggtat ggcctctaaa aacatggccc cagcagcttc agtccctttc
tegtegatgg teaageacaa cettattgea eggettggan gagetteagg ggtgeteete
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tqtqaccccq qaqaqqtcaa qccccattnc tqaaqacctt agtgatgccc agttgaccca
                                                                    360
gg
                                                                    362
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gccaagtatc atgaacttac gaagaggaga taagagatct gatcttttct gtaggtattc
                                                                       180
                                                                       240
catctccagt ttgtcatatc tttcccgatt actgggattt atccacagan ttaggctgag
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gaaacataac catccggggg aggcantcga tcagggggct accaggctag ctcgggtcac
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ggatgttttc ggagggtttg gctggtctgg cctgtggggg attaaggccc acctttcagg
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ggga
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caatagntgg ttccgctgcc tgaagctctg agntgtattc cagggcatga gggaagcagg
                                                                       180
ccaccaaagt aaaggggaat accaaactac agtggcaatc aatacagggc aataattgtg
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aaaaattagc acatggttcc ctttagttta accaagcagt tcagtaacta tcaaaaggaa
                                                                       300
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      (1)...(445)
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gtngggttag agttgggaac ctatgaacat tetntagggg ceaetntett etceaeggtg
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aggeteaggt agetgetgge egegtaettn ttgttgetet gtttggaggg tttggtggte
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tecaetecen eettnaeggg getgeeatet geetteeagg geaetnteae ageteeeggg
                                                                       360
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tecteceggt getttttgeg gtatteetge agegtttete egecaeggte tecataaatt
tagggttctt cctgggagac ttctacaggg accgtcacag tgatgggatc agagtcaaag
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                                                                       385
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                                                                       240
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                                                                     120
cacatetgaa atgaccaett ecaaageeta ageaetggea caacagttta aageetgatt
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                                                                     240
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                                                                     120
                                                                     180
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gtggaatggg ctcaaggttc ctgagacacc cgattcctgc ccaaacagct gtatttatat
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С
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geoceegege gegeeceaag gagetgeget tecaetecat ceteaaggtg gaetgegtgg
agegeaeggg caagtaegtg taetteaeca tegteaecae egaceaeaag gagategaet
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                                                                      420
cegeegagga egeegtgget geegeggeeg eegeaceete egageeeteg gageeeteea
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ggccatecee geageeeaaa eeeegeaege eatgageeeg eegegggeea taegetggae
                                                                      540
gagteggace gaggetagga egtggeegge geteteeage eetgeageag aagaaettee
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                                                                      360
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tcagataagt ttgtgaaaat ctacattacc ttaactggag ttcatcaagt tcccactgag
                                                                      420
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                                                                      600
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tgggattacc tgacccaggt tgaaaaggag tgcaaagaaa aagagaagcc ctcctatgac
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                                                                      720
                                                                      780
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